

JUN 21 1910

## CONVENTION REPORT ISSUE

VOL. VII. NO. 5

\$1.00 A YEAR

JUNE, 1910

# SELLING ELECTRICITY

The Magazine of Electrical Progress

## Jandus Luxolabra

For Aristocratic Street Lighting and Increased Revenue to Progressive Central Stations

We have advanced the sale of Ornamental Lighting Standards from so many pounds of cast iron to so much illumination; in other words, *we were the first to place this business on a practical central station basis.*

Our Central Station Department has been added to co-operate with Central Station Contract Departments.

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Send for Catalogue 40, Jandus Luxolabra.

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Luxolabra No. 53A-3 lights  
Luxolabra No. 55A-5 lights  
Fitted with Jandus Art  
Globes.  
Pressed Steel, Copper or  
Bronze.

**THE JANDUS ELECTRIC COMPANY**  
Cleveland, Ohio

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without expensive Extra Wiring

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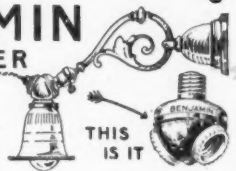
requires no wiring  
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the outlet—and you  
have two sockets

instead of one. You can burn two lights or  
burn one light and run an extra wire  
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iron heater, flat iron, etc., at the  
same time.

*Much simpler than  
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Expensive.*

*For sale by all  
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paid on receipt  
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A Portable Vacuum Cleaning Machine combining  
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Can be attached to any electric light socket.



"The only High-Grade, Efficient Machine on  
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Central Stations. Growing concerns and responsible  
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Spring starts March 21st  
Summer starts June 21st

Then is the time to sell to your  
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electric irons.

Now is the time to order them  
from us.



"AMERICAN" SUPERIOR—6 lbs.



"AMERICAN" STEEL CLAD—7 lbs.

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Irons so good as

## "AMERICAN" ELECTRIC IRONS

Manufactured by

American Electrical Heater Co.

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*Oldest and Largest Exclusive Makers in the World*

In writing to advertisers, mention "Selling Electricity"

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# There Is Just One Point

That you must bear in mind when you recommend a sign and that is--Will your customer get his money back and profit in advertising value?

If the sign doesn't pay him, it won't pay you to recommend it. And by the same token you should recommend the sign that will pay.

We have a great many designs of electric signs which have been successes, and will be equally effective in your city. If you have a cafe, or a drug store, or any other prospect who will be interested in "something new," write us and we will send you a sketch that will appeal.

THE IDEA BEHIND ALL  
VALENTINE SIGNS IS  
ADVERTISING VALUE

We aim to build signs that will sell more signs, which is just what you want.

**Valentine Electric Sign Co.,**

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The G-M Lamp  
(Patent applied for)

## Save Your Eyes

Did you notice how many men attending the Convention at St. Louis wore glasses? There were hundreds of them! They have neglected their eyes. We offer

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AN EYE SAVER FOR YOU

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That's why it appeals to the housekeeper — the water never grows cold.

That's why we have sold them by the thousands —

That's why fully one-quarter of these thousands have gone into houses where current had not been sold before—

That's why we tell you that you can secure new consumers by introducing the THOR machine.

*If we can sell them, so can you.*

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Or Following OUR Tracks

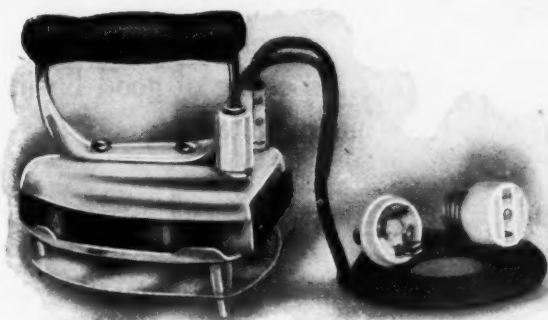
## PROGRAMME

### HEAT ONE

Winner: **EXCEL  
IRON**

Odds:

3 pound, \$3.75  
6 pound, 4.75  
8 pound, 5.75



### HEAT TWO

Winner: **EXCEL  
DISC**

Odds:

4 1-2 inch, \$3.75  
6 inch, 5.00  
8 inch, 8.00



Write for Past Performances  
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**Our Guarantee is No Gamble**

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Consolidated Engineering Co., Denver, Col.  
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The Lowe Electric Company, N. Y. City

In writing to advertisers, mention "Selling Electricity"

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The Central Station who neglects to give the best street lighting it knows is committing the crime of good business abuse. If he has installed

## Sterling Street Series Lamps

he is giving the best possible street lighting, but more than that he is advertising electric light to the total population; he is raising the standard of illumination; he is creating good will and tending toward civic betterment. Good street lighting is made possible with Sterling Mazda Series lamps without increased expense. Get our figures and let us help you in designing proper street lighting. Our engineers are at your service, our experience at your command. Ask.

**The Sterling Electrical Manufacturing Company**  
Warren, Ohio

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STANDARD OF QUALITY

Established 1828



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**Ornamental Lighting Posts  
for all Purposes**

### SPECIAL TO CENTRAL STATIONS

We will be glad to co-operate with your New Business Departments and submit special designs for Commercial Lighting Projects.

*Send for our New Catalogue*

**The J. L. Mott Iron Works**

118-120 Fifth Ave., New York



## The Machinist Gets the Blame

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They blame it on the machinist, never figuring the time he has to waste adjusting belts and pulleys to change the speed of his machine.

Perhaps they have never had it brought particularly to their attention that line shaft transmission also wastes about 35 to 40 per cent of their power.

Why don't you show them that if they connect

## Fort Wayne Motors

direct to their machines they would increase the quality and quantity of their work and cut in half the cost of operation.

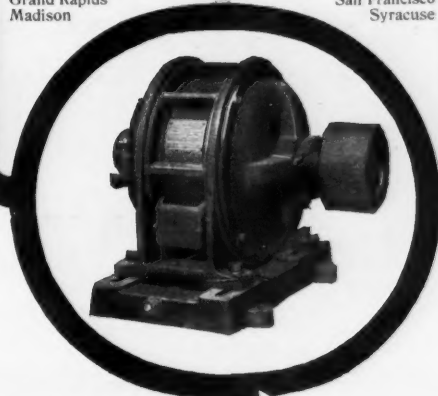
Our Bulletin "Motor Drives" has a lot of talking points and data on this subject that makes sales easy if you go after them, and there is nothing better for building up a profitable load for the Central Station.

There's hardly any limit to the field as we make motors that will drive almost anything that requires power to run it.

If you have not seen a copy of this booklet you're handicapped. Better send for it today and learn the various uses to which a motor may be put, and incidentally why Fort Wayne Motors are superior.

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Cincinnati Milwaukee New Orleans St. Louis  
Chicago New York Philadelphia St. Paul  
Grand Rapids San Francisco  
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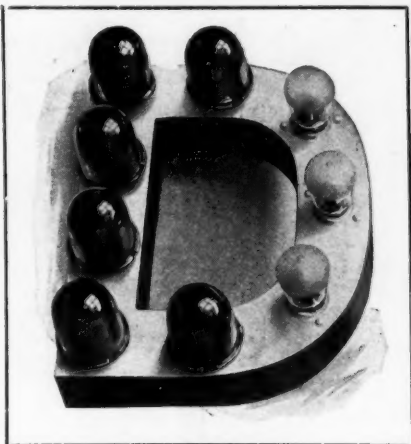
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# Natural Glass Lamp Shades

—FOR—

Electric Signs and  
Decorative Lighting



(Patent applied for)

Ruby, Green, Blue, Amber, Opal



The Shade



The Holder

(Patent applied for)

The shade covers the entire lamp instead of the tip only and produces the same effect as natural glass lamps at much less expense. This solves the problem of colored effects in electrical display, for the colors are absolutely permanent and do not fade when used on tungsten lamps.

The holders are simple, safe and satisfying.

Write for Prices and Literature.

**The A. & W. Electric Sign Co.**  
CLEVELAND, OHIO

In writing to advertisers, mention "Selling Electricity"

# SELLING ELECTRICITY

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NUMBER 5

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Published monthly by THE RAE COMPANY  
FRANK B. RAE, JR., President and Treasurer      EARL E. WHITEHORNE, Vice-President  
W. C. ANDREWS, Secretary  
Editorial and Advertising Departments: 74 Cortlandt Street, New York City  
Telephone: 2314 Cortlandt (Private Branch Connecting all Departments).  
Publication Office: American Building, Brattleboro, Vt.

NOTICE.—Advertisements, Changes in Advertisements, and Reading Matter intended for any month's issue should reach this office not later than the fifteenth of the preceding month.

Entered as second-class matter, February 28, 1908, at the Postoffice at Brattleboro, Vermont, under Act of Congress of March 3, 1879.





W. W. FREEMAN  
President National Electric Light Association

# ***SELLING ELECTRICITY***

Edited by **FRANK B. RAE, Jr.**

**EARL E. WHITEHORNE, Managing Editor**

## **THE CONVENTION**

### ***The National Electric Light Association's Twenty-fifth Anniversary at St. Louis the Largest and Most Successful Meeting Ever Held***

**B**Y the time this magazine is issued, the industry will have received the details of the 33d Convention of the National Electric Light Association from the weekly trade journals. That it was the largest Convention on record, the figures show; that it was also the most successful is the opinion of all who attended. Past President Frueauff and the many Committeemen who labored so long and faithfully can retire with the feeling of having accomplished with remarkable success a work, the magnitude of which can hardly be realized by any but those who have undertaken similar great tasks.

From the standpoint of the commercial men, the most important work of the St. Louis meeting was the taking of preliminary steps in the formation of a Commercial Section of the Association, an account of which will be found on another page. But even without this development, the Convention was filled to overflowing with events of vital importance to everyone interested in the remotest way with the central station industry. Above all, it was a "working convention." While there was no dearth of entertainment and no lack of goodfellowship, the attendance upon every session was remarkably high; the atten-

tion given to the exhibition was unusually keen and searching; the care and foresight evidenced in the discussion was a tribute both to the authors of the many papers and to the intelligence and keen insight of the leaders of discussion. Aside from the poor



Past President Frank W. Frueauff  
Presiding Officer at the St. Louis Convention

acoustics of the main meeting hall, which were in some degree remedied after the opening session, nothing marred the perfect conduct of the meetings. The programs were of exactly the right length to admit of ample discussion and to permit the

sessions to run on schedule; the responses to the chairmen's calls for discussion were unusually prompt and vigorous; there were no frights and few disappointments.

Everything considered, the Convention which has just passed into history sets a standard which will be difficult to duplicate and well-nigh impossible to surpass.

## The Commercial Sessions\*

*Meetings of the Commercial Men as Usual Draw the Largest Attendance*

The keynote of present-day central station commercialism was struck in the very first paper presented to the Convention, Mr. Arthur S. Huey's "Latitude in Commercialism," which we print in complete abstract on another page. Briefly, Mr. Huey pointed out that the real central station commercial man must be a business man in the best sense of the term; that he must concern himself with the vital problems of the business, not merely with the sale of current and appliances; that he must carry forward the business with the same breadth, openness, rigorous fairness and foresight as characterizes the conduct of any worthy business venture which looks to the public for sustenance and depends upon public approval for dividends. The advantages of control by public utilities boards created under reasonable laws was pointed out and the necessity of central station managers identifying themselves with all movements for civic betterment insisted upon.

George Williams, who succeeded the president in the chair, called upon E. W. Lloyd of Chicago to lead the discussion. Mr. Lloyd coincided with Mr. Huey's views and suggested many methods, especially in office management, which his experience had proven of advantage in retaining public good will. Messrs. T. I. Jones, Stannard, Seelman, Burnett, Hutchins, Almert and Arthur Williams followed in turn. The tenor of the remarks as a whole was that of hearty

approval of the paper. The advantages of every lighting company's being in close touch with its local board of trade were brought out several times and the methods followed in Brooklyn and Rochester cited as examples of linking the company closely with the most progressive element of its city. In order that the next paper might have its full share of attention, Chairman Williams was compelled to cut short the discussion at this point.

"Residence Lighting," by H. J. Gille, was read and received hearty and prolonged applause. The paper contained some interesting figures on the diversity factor of residence business and upon the profit and breadth of the market. "Education," he stated, "begins at home and the value of residence business is very far-reaching. Its various influences have been too long overlooked." Later on, Mr. Gille took up the factors which enter into the installation of satisfactory and profitable residence lighting and pointed out that the successful development of this market depends not alone upon an equitable rate, but upon the co-operation of architects, contractors fixture-makers, and decorators.

The chairman called first upon V. R. Lansingh for discussion. Mr. Lansingh explained the great difference in the amount of light required in rooms having different kinds of decoration, and stated that a room with medium dark side-walls and ceiling takes four times as much light to secure a given result as where the walls and ceilings are light. He pointed

\*This account of the proceedings of the Commercial Sessions is Mr. Rae's report as it appeared in the "Convention Daily," of which he was an Associate Editor.

out that the lighting man must have accurate knowledge of points such as this. Messrs. Hoffman of Philadelphia and Osborne of Spokane advocated residence lighting and the latter stated that in his territory \$112 per year per kilowatt is the average winter income. Mr. Dow of Detroit gave a number of interesting figures and suggested small ventilating fans as an added load for residences. He was followed by Messrs. Callahan, Mendenhall, Sparks and Almert, the last named giving some terse advice to the managers of smaller plants who are more willing to reduce rates in the face of public demand than to study out proper economies and make the service worth the price.

By special request, Mr. Rollins of Hartford, Conn., was called upon for that city's experience. He stated that within the year his company had added some 25,000 low-voltage lamps to its circuits on a flat-rate proposition. This rate is about \$1.20 per 15-watt lamp per year, the line voltage being stepped down with an economy coil and the company protected against change of lamps by an excess indicator. The method has been proven satisfactory and profitable after two years' experience and the business is growing steadily. Mr. Rollins' remarks caused a considerable argument, but it was not shown that the Hartford plan is anything but satisfactory for small customers, though Mr. Rollins stated that it was not advocated or used in the case of the larger or better class residences. The discussion swung back to general principles and Messrs. Osgood, Jones, Shepardson and Gille concluded the remarks.

At this point, recess was taken for luncheon. The meeting was a very successful and interesting one, and the delegates were prompt in reassembling to hear the report on "Central Station Advertising" by Messrs. Howard K. Mohr and C. W. Lee.

This report of 36 pages pretty thoroughly covers what has come to be regarded as standard practice in cen-

tral station newspaper advertising and publicity. Mr. Lee, who read the paper in Mr. Mohr's absence, explained that the monthly bulletin and the follow-up system were too well known to require explanation. He stated that the daily press is now acknowledged to be the best medium for reaching the public and that other systems are to be regarded as supplementary. The report covers the necessity of all advertising being backed up by adequate service and by active solicitation, and proves that while the larger companies naturally spend the most money, proportionate results can be secured by smaller companies at reasonable expenditure. The report also covers a large number of personal opinions gathered by the editors from central stations of every size and widely scattered.

Mr. L. D. Gibbs of Boston stated that the value of the report was chiefly for the smaller companies, inasmuch as the metropolitan companies had already well learned the lesson of advertising. He pointed out that the largest danger in any company's spending money for advertising lay not in their making mistakes in copy or media but in failing to enlist the enthusiastic co-operation of the entire organization to back up the printed appeal.

F. D. Beardslee of St. Louis, whose



F. D. Beardslee  
Manager Commercial Engineering Dept. Union Electric  
Light and Power Co. St. Louis, Mo.



work in publicity is attracting wide attention at this time, explained the campaign now being carried on in this city. After describing this work he stated that the local company finds bill boards and electric signs of very great advantage and stated that there are 25 illuminated boards and a half-dozen large signs constantly at work for the St. Louis Company. He asked the delegates to inspect these and judge of their value. He also touched briefly upon the stories he had been able to have inserted in the Sunday supplements of the local papers as suggesting a channel for valuable publicity of educational value.

J. C. McQuiston of East Pittsburg gave some interesting figures gathered by his publicity department to determine the value of general advertising, and also explained the work his company is doing to co-operate with central stations to develop business of all sorts. He was followed by Philip S. Dodd of Cleveland, who explained at some length the co-operative movement of the incandescent lamp interests to supply high grade advertising matter to central stations at a nominal price with a view to enlarging the market not only for electric light, but for all branches of residential service. Mr. Dodd was emphatic in his plea for broad-minded co-operation in which he was ably seconded by Mr. Lee. The whole trouble with a great deal of the work so far done, not only by the manufacturers, but by the central stations themselves, was that it had not been distributed in proper season and to well selected lists. The percentage of waste effort was too high, said Mr. Dodd, and the value in great part lost through the feeling that this sort of advertising is merely printed matter.

President Frueauff took the chair to introduce Hayden Eames, whose offering on "The Electric Vehicle Opportunity" was next in order. Mr. Eames was very enthusiastically received and made a deep impression by the way he delivered his address. The usual arguments in favor of the electric ve-

hicle as a money maker were dispensed with and he plunged at once into some of the difficulties which surround the introduction of electric. The worst trouble at present is the lack of understanding of the problem to be solved. Not only the vehicle users but even central station men fail to appreciate the status of the electric today. Confusion exists as to ratings of business vehicles; the true field of the electric is little understood; grades are looked upon as prohibitive which are really not a deterrent, and battery troubles are magnified. Mr. Eames drew a prolonged laugh when he stated that anyone can get good mileage in hilly cities if he "intelligently leaves the battery alone." Touching the value of the business to central stations he said that a pleasure vehicle is equivalent to three ordinary residences and a commercial wagon equal to thirteen residences as a revenue producer.

Mr. Wagoner of Long Island City followed with some very pertinent remarks, as did also Frank H. Stone of Boston. Wm. H. Blood, Jr., of Boston stated that the electric vehicle is "the best undeveloped prospective load in sight for the central station." Continuing he told of a movement on foot to undertake a co-operative campaign of education by means of advertising in which the vehicle makers, storage battery companies and central stations are getting together a fund which will place before the industry and before the prospective users of power wagons complete and authoritative data on the performance of machines and batteries which will, it is hoped, serve to greatly stimulate this class of business. After Mr. G. H. Jones of Chicago had given the results of his practical experience in charge of machines, Mr. Eames closed the discussion by reiterating the need of liberal and continuous work toward development of this, the most promising commercial opportunity at present before central station men.

In the absence of E. L. Elliott, his paper on "Decorative Street Lighting" was read by V. R. Lansingh. A large

number of interesting slides were shown with this paper, which was a brief statement of the advantages of decorative street lighting as a source of revenue and as a movement toward civic beauty and betterment in which every company should join.

This concluded the day's proceedings. The attendance throughout the day had grown, delegates whose interests lay in other sessions dropping in from time to time and remaining through the session.

Mr. T. I. Jones of Brooklyn was the first on the program Thursday with his paper, "Commercial Department Organization."

The scheme of organization outlined is that followed with entire success by the Brooklyn Edison Company. It is the result of very careful analysis and many experiments and represents a combination of simplicity, economy and efficiency from which any of the larger companies could take many valuable hints. Mr. Jones' presentation was forceful and effective and his paper drew out a considerable discussion.

In the ensuing discussion, Messrs. Lloyd, Wallace, Gille, Stannard and Pembleton were prominent. Many points were brought up which, while the speakers represented large companies, could be applied with profit to the organization and conduct of smaller company commercial work. For example, Mr. Wallace explained how all large customers of the Boston Edison Company are called upon regularly by a member of the sales force to look over installations and anticipate complaints, or to remedy small defects of service of which even the customer himself may be ignorant; Mr. Gille made pertinent remarks upon the payment and promotion of men in which he showed that there is room in the handling of the individuals who compose the new business force for getting better service by better treatment. Mr. Pembleton stated that his organization is essentially that described in the paper and stated that the plan is one of very high efficiency as developed throughout the wide extent

of territory served by the Public Service Corporation of New Jersey.

The president, before the discussion had proceeded far, rose to announce that he would thereafter limit each speaker to three minutes' time. From this point, the action was brisk and snappy. Several speakers were cut short by the gavel, the effect being to give the meeting a dash and go that was refreshing. Messrs. Long of Leavenworth, Kemble of Brooklyn, Sands of Malden and Podeyn of Brooklyn, all added materially to the value of the discussion, each touching a vital point in commercial department organization. Mr. Jones closed the discussion by answering a number of questions which had been put by the various speakers.

"A Plan to Interest National Advertisers in Electric Advertising" was the title of the next paper, which we reprint in full on page 301. The author, Mr. Frank B. Rae, Jr., was unable to present this paper, so the task was turned over to Philip S. Dodd of Cleveland. In brief, the plan calls for the securing of a subscription of not less than \$5000 to carry on a well-rounded campaign of educational work among national advertisers and advertising agencies, the object being to place electric advertising upon exactly the same plane as other recognized forms of publicity. The author stated that he had already secured the co-operation and subscriptions amounting to \$1750 from four manufacturers of signs and sign lamps, and declared that the plan as outlined should go a long way toward standardizing electric advertising in the eyes of those who are spending large sums in presenting their wares to the public in a national way.

The president called upon E. L. Callahan to open the discussion. Mr. Callahan, whose work brings him into intimate contact with the problems of a large number of plants in the west and southwest, stated that the purpose of the paper was one which had his endorsement and that

he believed the recommendations made therein should be carried out. He made a motion, which was duly seconded, as follows: "The plan outlined in Mr. Rae's paper has the endorsement of, and is referred by this



E. L. Callahan  
Manager New Business Dept. H. M. Byllesby & Co.,  
Chicago, Ill.

meeting to, the newly formed Commercial Section or its officers for action." Before the motion was put to a vote, Mr. Markham of Chicago and Mr. Seelman of Brooklyn both spoke in favor of the plan. The president then called for a vote and Mr. Callahan's motion was carried unanimously.

The president here announced the proposed formation of a Commercial Section of the National Electric Light Association to which Mr. Callahan had referred, stating that the Executive Committee in special session had approved of the idea and that a caucus would be held immediately at the close of the afternoon session to appoint committees to draft a plan of organization and transact such other preliminary work as might be necessary, this caucus to be presided over by John F. Gilchrist of Chicago.

The paper, "Industrial Lighting with Incandescent Lamps," was next called for and J. D. Hoit of Cleveland, one of the committee of three having

charge of the preparation of the paper, took the floor. The paper was illustrated with a large number of very interesting slides, many of which were of the "before and after" type, in which the same machines were shown under the ordinary lighting equipment and then under the improved system recommended by the authors. Mr. Hoit made a number of interesting points with reference to the status and recent development of industrial lighting, showing that even now there are large manufacturing establishments wasting thousands of dollars annually in waste time, spoilage, defective eyesight and inefficient help solely on account of unscientific illumination. He stated that there are plants in New England operating under flat flame gas burners and even oil lamps, while the average electric lamp used in industrial lighting is the least efficient procurable. It was pointed out that in such industries as textiles, the lighting should be designed to accommodate the darkest colored fabrics, as many installations have been made with an eye to light goods which proved unsatisfactory when dark goods are worked upon. Mr. Hoit was roundly applauded at the conclusion of his paper, and it was evident that he had made a deep impression.

Mr. Gille of Minneapolis was asked to open the discussion. He stated that in his opinion the subject covered did not admit of discussion; that it was a contribution to the literature of the industry, and that if his recommendations were followed every delegate present would place this paper in the hands of his salesmen as a text book to be used in the solicitation of industrial lighting. He felt that the Association should appreciate work of this character done for the benefit of the members by men whose personal interests did not demand so great an expenditure of time and effort.

In bringing the meeting to a close, the President coincided with Mr. Gille's last statement.



Despite the fact that the afternoon commercial meeting was an added session and that there were several parallel sessions of particular interest, some two hundred delegates had gathered when Mr. Stannard of Denver started the proceedings with his paper on "Prompt Execution of Orders," a topic for which his experience in this line of work particularly fitted him. In effect, Mr. Stannard stated that promptness is not only economical, but constructive when introduced into the work of the central station. His paper was rather an essay than an exposition of the practices of his company and as such met with the high approval of all present. This was abundantly shown when Mr. Paul Doty of St. Paul opened the discussion. Mr. Doty pointed out that promptness, in the final analysis, is only a matter of common courtesy from the customers' standpoint, that it eases the work of the manager of the company and reduces his loading charges.

Mr. Hare of Philadelphia touched the subject from a different angle when he pointed out that the "square deal" doctrine advanced by the author is fast becoming a matter of absolute necessity instead of one of policy alone. Messrs. Osgood, Burnett, Clark and Seelman all contributed remarks which indicated hearty approval of Mr. Stannard's points. A little variety was introduced by J. T. Hutchings of Rochester, who stated that all the delays in getting services installed after the contracts have been signed are not traceable to the operating department, but that many of them occur because the contract department in its anxiety for speed, too frequently sends the crew out to connect up a customer who has neither completed his installation nor had it inspected. Mr. Hutchings was roundly applauded.

The next paper, "Electricity on the Farm," by Herman Russell, was the novelty of the commercial sessions. Mr. Russell pointed to the work done in the West to encourage

irrigation and explained that modern methods in farming are constantly calling for better and cheaper power. He showed that this market is of tremendous possibilities but that it will require a long and consistent campaign of education to bring it to a point where we can look upon it as immediate business. In describing the experiments near Rochester, the author stated that about forty motors are in service, most of which are used for irrigation. He ended with a warning that farm machinery manufacturers and others would soon seize this great market for isolated plant exploitation unless the central stations grasp the opportunity now open.

In calling for discussion on the paper President Frueauff stated, "I believe this to be one of the most important papers presented to this convention." Mr. Seelman was the first



M. S. Seelman

Advertising Manager Edison Electric Illuminating Co.,  
Brooklyn

speaker recognized and he proposed that copies of the paper be distributed to every farm paper in the country with a suitable letter soliciting its publication. After a little discussion this motion was unanimously carried with an amendment providing that the paper be somewhat condensed.

At the conclusion of the discussion upon Mr. Russell's very interesting paper, President Frueauff called Mr.

George Williams to the chair to explain the purposes of the proposed commercial section of the association. Before doing so, however, the meeting was adjourned to go into immediate caucus on commercial organization, the concluding motion being

a rising vote of thanks to Mr. Williams for the very able way in which he conducted the arduous work of preparing the program.

An account of the new Commercial Section organization will be found elsewhere in this issue.

## Commercial Men Organize

*Section Formed in National Electric Light Association to Promote the Work of the Convention "Commercial Days"*

One of the most important developments since the "new business" idea was first brought forward as an inalienable part of central station progress is the Commercial Section of National Electric Light Association now in process of formation.

The idea of a Commercial Section was first put into practical form by George Williams, who has charge of new business development for Henry L. Doherty & Co. As explained by him at the caucus held during the St. Louis Convention, the basis of the plan is to provide an organization to care for the now considerable work necessary in connection with the commercial sessions of the conventions and to act as a spur and incentive to membership in the Association to a large number of new business men throughout the industry who at present do not realize the need of membership or who do not appreciate that it offers them adequate return upon the cost of such membership. Of course, such a Section will immediately find itself engaged in providing further benefits for such members, for it is inconceivable that the organization could be in running order for very long without initiating movements of vital interest to its Section members. Already, indeed, such a movement is under way; that suggested by Mr. Rae in his Convention paper on interesting National Advertisers in Electric Advertising. This paper was referred by the delegates present at its reading to the attention of the

new Section, by whose officers it will undoubtedly be handled if the plan and methods of its execution meet with the approval of the Executive Committee of the Association.

The Commercial Section has progressed this far: At the caucus held on Thursday afternoon of the Convention, which caucus was presided over by no less important person than



George Williams  
Chairman Commercial Section N. E. L. A.

John Gilchrist, Vice-President of the Association, the delegates authorized the chair to appoint a Committee on Organization to draft a plan of operation for the new Section. The general scheme of forming such a Section had already received the approval of the Executive Committee which, however, reserved its final approval until a plan of organization should be

prepared. On the Organization Committee are Messrs. Williams, Jones, Gibbs, Lee, Gale, Rypinski, Becker, Mohr, Lloyd, Crouse, Callahan, Henderson, Gille, Stannard and Rae, of whom nine have had experience on the Commercial Program Committee. This Committee seems to have met with the approval of the delegates present. Immediately after the caucus the Committee went into session and, after appointing Mr. Williams chairman and Mr. Rae secretary, agreed upon a plan of work whereby the chairman was empowered to draw up a tentative scheme of organization which would be distributed to the members and criticised, after which the final plan embodying such modifications as seem of advantage, would be submitted to the Executive Committee.

It is anticipated that the preliminary work of organizing will be completed within sixty days, and that the final plans will be published by the Association not later than the middle of August. From then on, the work of getting new members will proceed rapidly. With a Commercial Section devoting its energies solely to the welfare and assistance of commercial men in both small and large companies, there is every reason to suppose that the majority of managers and new business men who have not yet joined the organization can be drawn in. The Committee in charge is sanguine that it can either present the present advantages of the Association or at slight expense provide new features which will prove a loadstone to many whose membership has not yet been secured.

The obvious danger of the new Section is the possibility of its being looked upon as a division of the Association's membership. The commercial men, or some of them, feel that they are tolerated rather than accepted as correlative. Their attitude at times has been that of the small boy with a chip on his shoulder. If the officers of the Commercial Section blaze too wide a trail or adopt too

assertive an attitude it is quite possible that a schism might be formed. This, however, is hardly to be feared. The progressives of the industry know that the commercial man is as indispensable as the accountant; that he has his peculiar problems which must be discussed and analyzed and solved; that it is quite as important to build up an adequate and efficient organization for enlarging the market as to build an adequate and efficient station to supply it. On the other hand, the members of the Commercial Section Organization Committee realize that at best theirs is only a correlative division of the business and that an attitude which might be construed as domineering would mean sure defeat to the very end toward which they are working.

The new Section, if planned wisely and carried on conservatively, will be a tremendous influence for progress, and it is believed that the men who head the movement, while of the younger group, will not fail in the important task to which they are committed.

### The Incoming Officers

*Affairs of National Electric Light Association in Strong Hands for Coming Year*

As was expected, the customary rotation was observed in the selection of officers of the National Electric Light Association at the election held on the last day of the Convention.

In W. W. Freeman of Brooklyn, the Association has a President of vigorous personality, sound common sense and cosmopolitan breadth. A man who has come up from the ranks himself, he has a keen appreciation of the lesser as well as the larger problems that confront the central station and can be depended upon to strike a balance between the many interests which go to make up the Association's membership.

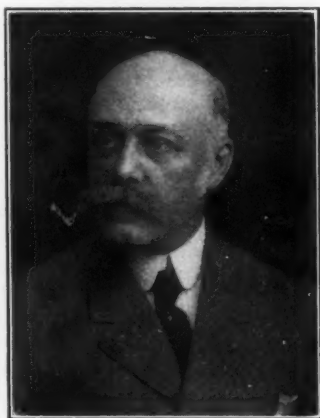
The First Vice-President, John F. Gilchrist, and the Second Vice-President, Frank M. Tait, are both men

who have proven their value in Association work. While both represent the middle west, their experience has been very broad and their success



F. M. Tait  
Second Vice-President N. E. L. A.

unusual if not, indeed, spectacular. Mr. Gilchrist has seen the Commonwealth Edison Company of Chicago, expand to tremendous proportions and no small part of this expansion may be traced to his creative work



T. C. Martin  
Secretary N. E. L. A.

as assistant to Mr. Insull. Mr. Tait, on the other hand, has built a small and unpopular company from almost nothing to one of the most successful,

progressive and popular central stations in Ohio.

In the selection of the Secretary, a slight variation was made from established procedure, T. Commerford Martin being given the title, which it is hoped he will carry for many years. As before, Miss Harriet Billings will be Assistant Secretary.

George H. Harries of Washington, who has been on the Executive Committee for years, was elected Treasurer.

The new officers lack nothing of ability and experience, and the new administration, it seems assured, will excel rather than fall below the standards set in previous years. The year offers many opportunities for constructive work and little time and energy will need be consumed in averting harmful influences. With the present large membership and the high standard of efficiency which the Association has reached, the year of 1910-11 should set a high-water mark for solid progress and practical benefits.

### The Convention Daily

A feature of the 1910 Convention which stands, we believe, unique as a newspaper effort, was *The Convention Daily*. The *Daily* was issued co-operatively by the eight leading electrical trade and technical journals under the direction of the Association. Its staff was made up of T. Commerford Martin, who acted as Editor-in-Chief, W. E. Keily, Managing Editor, and Messrs. Braymer, Cushing, Ehrlich, Young, Wardlaw, Riddell and Rae, as reporters. When it is remembered that these gentlemen are, in business, rather active competitors and that heretofore none of them except Mr. Rae had any experience in a Convention newspaper, the result of their work is altogether admirable.

The *Daily* was issued on the mornings of Tuesday, Wednesday, Thursday and Friday of Convention week, and contained accounts of all the interesting events, business, personal



and social which transpired, as well as a full registration list of all the delegates present. The issues varied between 16 and 24 pages, were well printed and remarkably accurate as to context and proofreading. The men on the *Daily* worked loyally for the paper and for the Association and fully merited the following resolution of congratulation and thanks adopted at the concluding session of the convention:

The hearty thanks of the National Electric Light Association, in convention assembled, are hereby tendered to the associated electrical papers as follows: The Central Station, Electrical Record, Electrical Review and Western Electrician, Electrical World, The Illuminating Engineer, Popular Electricity, Selling Electricity and Southern Electrician, for their generosity in publishing at their expense on behalf of the Association, the Convention Daily.

Resolved, That the Association congratulates these journals upon the success that has attended their efforts and hereby conveys its thanks to the editorial staff, Messrs. W. E. Keily, D. H. Braymer, H. S. Cushing, Jr., H. Ehrlich, Frank B. Rae, Jr., H. Riddell, G. A. Wardlaw, H. W. Young, O. H. Caldwell.

### The Anniversary Meeting

The unique and possibly one of the most interesting features of the convention was the 25th anniversary meeting held on Wednesday evening.

The principal address following Mr. E. A. Sperry's historical sketch of the founding of the Association was delivered by Mr. Samuel Insull, president of the Commonwealth Edison Company of Chicago. Mr. Insull's address was inspiring and highly instructive and interesting and was listened to with the closest attention by the large audience present.

After reviewing the remarkable progress in the industry since the first convention, when there were only about 80 central stations engaged in

the business with probably in the neighborhood of \$10,000,000 invested, Mr. Insull dwelt at length on the wonderful possibilities in prospect for the central station man. The following quotation perhaps sounds the keynote of this encouraging address:

"If you will take the statistics of any of the central station companies, whether they be large or small, and look for the reasons for the enormously rapid growth of the central station properties of the country, you will, I am confident, find that the rapid increase in the amount of energy sold responds absolutely to the putting into use of liberal methods of dealing with the company's customers.

"It matters not by what name you may call it,—whether you speak of it as the improvement of your load factor, whether you speak of it as creating a day load—the fundamental reason for the success of the business in which we are engaged is as much an appreciation of the proper method of selling our product as the opportunity to use the many brilliant inventions which have been made by the great technical minds of our time.

"I am dwelling upon this subject not with any idea of belittling the great achievements of the inventors and engineers whom it has been our good fortune to have had working in our interests in the fields of discovery and engineering, but for the purpose of impressing, more especially upon the younger men connected with our organization, the great importance of the commercial side of the business and to point out to them the advantage alike to themselves and the business itself, of their bestowing upon the commercial side of the business as much, if not a greater amount of thought, than that which they bestow upon the technical operation and construction side of central station development."

At the close of Mr. Insull's address the chairman read a number of congratulatory messages from absent friends—many of them men prominent in the history of the industry.

### Exhibits and Exhibitors

There were nearly 100 exhibitors at the convention this year, all the booths being installed on the main floor of the coliseum and forming one of the principal features of the convention. Yellow and white were the prevailing colors in the decorative scheme, the interior of the exhibit hall being canopied with drapery and hangings of these colors. Unique chandeliers and handsome star-shaped clusters of tungsten lamps provided the practical illumination for the hall, while the white-railed booths were marked off by dignified columns, each surmounted by a great glowing rose, with petals of art-glass

The Anderson Carriage Company, Detroit, Mich.—A four passenger electric coupe.

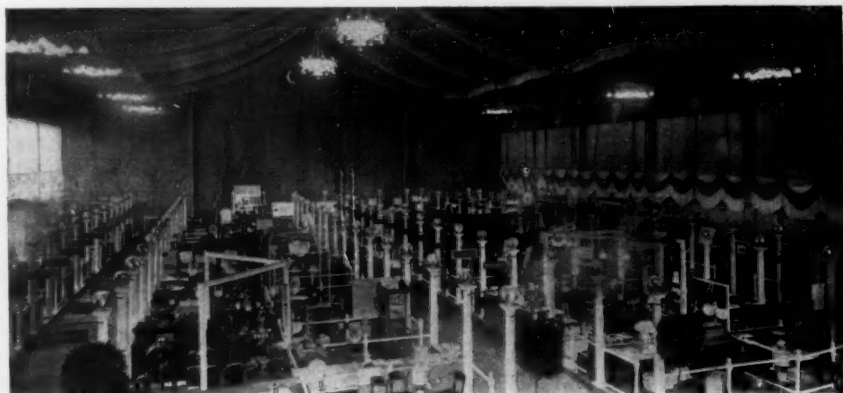
Automobile Maintenance & Manufacturing Company, Chicago, Ill. Electric delivery wagon with balance gear drive.

Baker Motor-Vehicle Company, Cleveland, O.—Four passenger extension coupe, interchangeable with Victoria body.

The Benjamin Electric Manufacturing Company, Chicago, Ill.—Wireless clusters and lighting specialties.

Central Station Development Company, Cleveland, O.—Reception booth

Century Electric Company, St.



View of Exhibitors' Booths

and containing an electric lamp. Outside of the coliseum, the street is made bright by festoons of hundreds of varicolored incandescent lamps, suspended from the top of the building.

Among the Class D members whose exhibits were of especial interest in their relation to current disposal were the following:

American District Steam Company, Lockport, N. Y.—Reception booth.

American Electrical Heater Company, Detroit, Mich.—Display of heating appliances.

American "Z" Electric Lamp Company, New York.—A non-blackening tungsten lamp which burns in any position with a guaranteed life of 1000 hours.

Louis, Mo.—Single phase self-starting motors.

Columbia Meter Company, Indianapolis, Ind.—Various types of meters.

Columbus Buggy Company, Columbus, O.—Four passenger coupe.

Crocker-Wheeler Company, Ampere, N. J.—Induction motors and transformers.

Duncan Electric Manufacturing Company, Lafayette, Ind.—Meters and transformers.

Edison Storage Battery Company, Orange, N. J.—Storage batteries.

The Electric Storage Battery Company, Philadelphia, Pa.—Storage batteries.

Electric Motor & Equipment Com-

pany, Newark, N. J.—The "G-M." portable reading lamp.

Excess Indicator Company, New York City.—Excess indicators for controlling flat rate consumption.

Federal Electric Company, Chicago, Ill.—Electric signs, clusters and specialties.

Fort Wayne Electric Works, Fort Wayne, Ind.—Meters, transformers, supplies.

General Compressed Air & Vacuum Machinery Company, St. Louis, Mo.—Portable motor-driven vacuum cleaner.

The General Electric Company.—Incandescent and arc lamps, heating devices, meters, transformers, motors etc.

General Vehicle Company, Long Island City, N. Y.—A two-ton chassis and enlarged photographs illustrating applications of electric vehicles in central station service.

Gudeman & Company, New York.—Sample line of electrical decorations and novelties.

Hart Manufacturing Company, Hartford, Conn.—"Diamond H" switches and meter connection blocks.

George A. Hughes Company, Chicago, Ill.—Heating devices.

Hurley Machine Company, Chicago, Ill.—Electric home laundry machine.

H. W. Johns-Manville Company, New York.—"Linolite" electroliers and construction specialties.

National Electric Lamp Association, Cleveland, O.—Reception room and display of incandescent lamps.

Otis Elevator Company, New York.—Elevator machine operated by push button controller.

Philadelphia Electrical & Manufacturing Company, Philadelphia, Pa.—Street lighting fixtures and lighting appliances.

Rauch & Lang Carriage Company, Cleveland, O.—Large 40-cell coupe.

The Sangamo Electric Company, Springfield, Ill.—Meters.

Simplex Electric Heating Company, Cambridge, Mass.—Heating appliances.

Star Electrical Concern, New York City.—"Star Flame" lamps.

Studebaker Automobile Company, South Bend, Ind.—Electric pleasure vehicles and delivery wagons.

Tungstolier Company, Cleveland, O.—Folding tungstoliers.

Wagner Electric Manufacturing Company, St. Louis, Mo.—Motors and transformers.

### Convention News Notes

The Commonwealth Edison Company of Chicago and the North Shore Electric Company, which serves the suburban towns of the same city, sent a special train-load of 120 delegates to the Convention. An even hundred came from the first named Company, these being chosen by vote from among the four hundred and odd members of the Chicago Company Section of the N. E. L. A.

The United Railways Company of St. Louis extended a nice courtesy to Convention delegates by supplying to each person registered a booklet containing twenty coupons each good for a ride on any street car. Delegates were loud in their expressions of appreciation. While the coupons did not represent much to the individuals, it meant the loss of at least \$1500 in fares to the Railways Company.

Four special trains served the St. Louis Convention, these being the Pennsylvania and New York Central trains from New York, the Alton special from Chicago and the Union Pacific-Wabash special from Denver. Everybody aboard expressed complete satisfaction with all the trains. The Alton special was noteworthy, making the regular eight-hour run in six hours and eighteen minutes. Every division superintendent jumped on and rode over his division, besides which the road sent the general passenger agent and two traveling engineers.



Stone and Webster of Boston were represented by a party of 57 delegates. The party held a little special convention of its own at the Hotel Jefferson on Monday. Henry L. Doherty & Company, also, was well represented and held a private conclave on Friday.

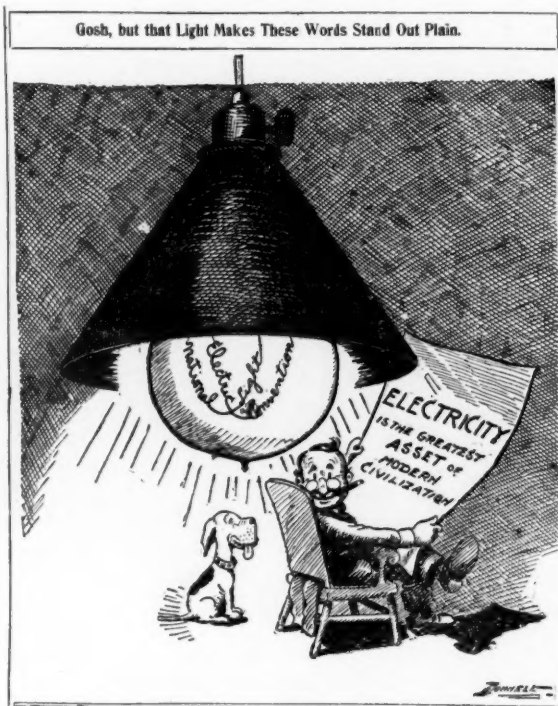
The work of the Registration Bureau, also, was without reproach. Miss Edith Myers, in whose charge this arduous task reposed, carried forward her work with an efficiency that left nothing to be desired, notwithstanding the registration was some 600 or 700 higher than at any previous Convention.

To Frank H. Gale, Chairman, and Walter Neumuller, Secretary of the Exhibition Committee, too much praise cannot be given. The arrangements for the exhibition were perfect and little or no friction was experienced in handling the large hallful of apparatus and material displayed. The decorations were in excellent taste and the service of the building employees all that could be desired.

A rejuvenation of the Sons of Jove was held in the main meeting room on Tuesday evening, the 24th, at which a class of 94 was initiated. The ritual was followed by a banquet at which Frank H. Perry of Chicago acted as toastmaster. The usual Jovian spirit prevailed throughout the evening and the event was voted one of the most pleasant of Convention week.

Formal announcement was made at the Friday session of a most important step being taken by the Illuminating Engineering Society. With the co-operation of Johns Hopkins

University of Baltimore, a series of graduate lectures will be given during the coming year by some dozen men of eminence in the field of illuminating engineering and collateral branch. It is expected that these lectures will serve to codify the subject upon a plane sufficiently high to overcome whatever faults have hitherto been found with this new science and art. Dr. E. P. Hyde, President of the Illuminating Engineering Society, ar-



A cartoon which appeared in the St. Louis Globe-Democrat during Convention week

ranged the series and feels that this work should stand as his contribution to the Society's advancement. The announcement made a profound sensation at St. Louis. It is expected that the lectures will be collected in book form and that they will serve virtually as text books on illuminating engineering.

Among the lecturers who are well known to central station men will be:

Edward P. Hyde, Ph. D., President, Illuminating Engineering Society, Director of Physical Laboratory, National Electric Lamp Association; Charles P. Steinmetz, Ph. D., Consulting Engineer, General Electric Co.; Clayton H. Sharp, Ph. D., Test Officer, Electrical Testing Laboratory, New York City; P. W. Cobb, B. S., M. D., Physiologist, National Electric Lamp Association; Mr. Norman Macbeth, The Welsbach Co.; Louis Bell, Ph. D., Past President, Illuminating Engineering Society; Van Rensselaer Lansingh, B. S., General Manager, Holophane Co.; John W. Lieb, Jr., M. E., Third Vice-President, New York Edison Co.; Walton Clark, M. E., Third Vice-President, United Gas Improvement Co., Philadelphia.

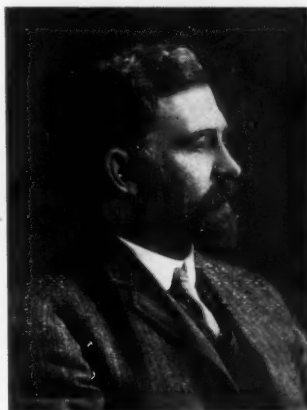
Among the pleasant gatherings was an informal dinner of the Illinois delegates at the American Hotel on Wednesday. There were fully 150 present and the meeting had the effect of welding together in closer comradeship the men of the Illinois Association.

At no previous Convention has the publicity work been handled with greater success, the daily papers of St. Louis giving an average of a column and a half each day to the proceedings. This work was in charge of Mr. John M. Connolly of Denver, to whom the thanks of the industry are surely due. In addition to the matter appearing in the papers of the Convention city, despatches were filed daily by the Associated Press and a considerable amount of preliminary "boiler plate" sent out to the papers throughout the country. The National Electric Light Association has suffered in years past from not being adequately represented in the press and this step is a move in the right direction. It is to be hoped that Mr. Connolly will be given many future opportunities of doing this needful work.

The lamentable death of George F. Porter, for many years Master of Transportation for the Association, placed upon Mr. Charles Hodskin-

son a peculiarly difficult task, but the new Master of Transportation carried on the work with great success, winning not only a resolution of thanks from the Association, but the personal thanks of every member who attended.

An interesting development was the Company Section meeting held on Thursday. It will surprise some members of the Association to know that there are now 28 Company Sections having a class B membership of almost 2500. The idea of establishing Company Sections originated with Henry L. Doherty and, as was fitting, it was Mr. Doherty who addressed the meeting. He explained that the aim of these Sections is to give to the employees of central stations who cannot attend the national



Henry L. Doherty  
Past President N. E. L. A.

conventions, as many as possible of the benefits of the big meetings. From the standpoint of increased membership, they have certainly proven very successful during the past year and if the recommendations at this meeting are followed the organizations will prove of very material benefit both to the Company Section members and to the companies within which they are organized.

Past President Doherty, of the National Electric Light Association, has

founded a gold medal to signalize the twenty-fifth anniversary of the Association. It is proposed that the medal shall be awarded for the best paper presented before the sections. The details of the plan, which have not yet been decided upon, are being worked out by Past President Eglin.

Those who failed to attend the Convention missed a treat in the visit to the Anheuser-Busch brewery. A large party, including many ladies, visited the brewery on Thursday and were shown through all departments by a corps of guides. After the trip, the officials entertained the guests, serving the famous Budweiser. The *Convention Daily* reporter, who attended the entertainment, turned in his report of the affair in the form of sonnets.

The social functions of the 25th Anniversary Convention were too numerous even for the eight reporters of the *Convention Daily* to keep account of. Popular and well-known members had to pick among half-a-dozen luncheons and dinners every day, while state delegation meetings, holding company meetings, college reunions, tete-a-tete affairs between old friends who last parted on the Boardwalk, were momentary occurrences.

"Scotty," the untiring chairman of last year's Membership Committee, did not cease his labors even after the Convention was in session. Immediately upon his arrival he established headquarters in the lobby of the Coliseum and employed a couple of "runners" to scout after visitors who should take out membership. He was very successful, too, securing dozens of applications from men who came to the meeting as guests of some other central station man, but who were easily persuaded to join when they beheld the wonders of the 2600-brain-power Convention.

The Wagner Company was very

prominent in adding to the pleasures of the Convention. The Company maintained a fleet of high powered automobiles which were very much appreciated by the ladies in getting from the Coliseum to the hotels, while members of the organization were everywhere assisting the officers of the Association in smoothing out the rough spots.

#### A Salesman's Handbook

The Public Service Corporation of New Jersey has compiled a very interesting illumination data book for the use of its salesmen. The feature of the book is a series of nineteen 8x10 in. photographs of local, sign, outlining, window and interior installations. Opposite each photograph is the full information covering the number of lamps, cost of construction, cost of burning per hour, and other details of interest to the prospective customer.

The accompanying cut illustrates a clever scheme for demonstrating in one photograph, both the effect of



concealed window lighting and the type and arrangement of the installation. The photographer first took a time exposure of the window with the shade drawn down to conceal the fixtures. This shows the normal illumination. The shade was then run up and an instantaneous exposure was made on the same plate to locate the light centres.

## The Commercial Sessions Program

*Abstracts of Some of the Papers Read Before the Commercial Sessions  
of the National Electric Light Association Convention,*

*St. Louis, May 22 to 27*

### Latitude in Commercialism

*By Arthur S. Huey, Vice-President H. M.  
Byllesby & Co., Chicago, Ill.*

The central station industry has suffered too long from lack of the genuine commercial spirit.

Instead of the judicious cultivation of the use of electrical energy by the public, too many operating companies have contented themselves with simply offering service and letting it go at that.

The endeavor to-day should not be to search for excuses for wrong conditions but to probe into the demands and needs of the consumer and to anticipate constantly what he wants and can buy advantageously; also to let him know about it.

I venture the assertion that at least 75 per cent of public ill feeling against utility organizations has been caused by the failure of operating companies to take pains to please their customers.

With all proper regard for the sensibilities of others, I am a believer in plain speaking.

I believe in admitting that things are wrong, when they are wrong, in order that curative measures may be applied without loss of time.

With far too many central station companies things have always been wrong on the commercial side of the business. Indifferent management has been to blame—the kind of management which permitted progress to overtake and pass it and to put it hopelessly out of the running.

How many managers are at the

head of establishments which are pointed out to visitors in showing them the good points of a city? How many central stations are properties where strangers are taken as a matter of course in the endeavor to demonstrate the progressiveness and prosperity of the community?

You know the answer as well as I do. It is, "Very few."

This is a true statement, despite the fact that our central station companies frequently represent the heaviest single corporate investment in a city.

As such our companies should take

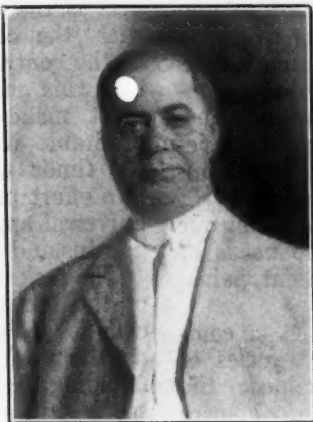
active parts in the whole commercial structure of the municipality. They should be made attractive physically, admirable from the point of efficiency, and should court the voluntary declaration of every citizen that "Our town has one of the best electric companies in the country."

The central station does far more than most other commercial influences to build up cities and to fill them with people, industries

and wealth.

A prevalent notion that utility companies do little or nothing to create the prosperity which occasionally comes to them is absolutely wrong. We can afford to spend a good deal of time and money eradicating this idea.

Even companies which seem to follow reluctantly in the wake of local development rather than to participate in and stimulate the communities' activities, contribute heavily to the general development.



Arthur S. Huey



A central station company and its officers, should, however, be in the very front rank of the wide-awake individuals and corporations who are planning and striving for municipal advancement. They should lead and point the way. They should employ their talents in helping to solve the common problems confronting their municipality.

An operating company has no business to skulk along and court privacy. We have no right to ask the public to "let us alone." Our business is the public's business to a large extent and the public's business is our business in the same measure, no matter what we may say or do.

A central station organization can do far more good for itself lined up with the Commercial Clubs, the Boards of Trade and similar broad-gauge bodies than it can fraternizing with peanut politicians and wasting valuable time in the attempt to manipulate political machinery.

One of our most imperative duties is to prove that the lack of direct competition in the central station industry does not result in non-progressive-ness nor to the disadvantage of consumers.

We can do this only by exerting our best resources to meet the needs of consumers in the most efficient, painstaking and beneficial way.

For competition's sake let us combat the wrong economic theories of the socialistically inclined, the twisted facts and theories of fanatics and the assaults of our personal enemies, and do our best to win.

And winning in this kind of competition, just as in any other, will come by using our brains and *taking pains*.

The time has come to quit regarding the public as a general nuisance, and instead to treat all consumers with the confidence and respect common to ordinary business transactions.

The consumer with a complaint should not be regarded as a fool or a crook. He should be accepted as a

part of the day's work to be handled by the cheerful and pervasive methods of the New Business Department.

Those who contribute most to the common good should be most liberally paid. To encourage development there should be a dependable system of compensation.

No one knows the extent to which electricity will go in the saving of manual labor, the conservation of fuels and the cheapening of light and power and heat, in their most convenient and adaptable forms.

To carry out the destiny of electricity we need the talent of the greatest number of brilliant minds which can be induced to enter the profession. They must give up many years to preparation. If the best men are to be secured for the technical advancement of our cause they must be guaranteed substantial rewards in proportion to their success.

It is the duty of those entrusted with the commercial responsibilities of the central station industry to see that this guarantee is offered. They must make the business uniformly profitable if they hope to assemble the funds which will reward inventive effort properly by the quick and universal application of improved apparatus and methods.

The task laid upon the business end of the industry is very difficult. It calls for fully as much brain power as do the professional departments, demanding a kind of ability just as special in its features as that demanded by engineering.

It seems to me far more important that the manager be a good man of business than a good electrical engineer.

As a rule, the professional mind is not well suited to dealing with the public in purely business transactions—and dealing with the public is one of the largest and hardest of the manager's problems.

I have been amazed, disheartened and discouraged time and again with the narrowness and inefficiency of men who posed as managers of utility

properties. I have found them railing at men and conditions when they themselves were the biggest pessimists and the worst croakers in the community. I have observed them sitting like ugly frogs on a log, bewailing the state of the public mind and the cussedness of the consumer, letting their property go to pieces and their service deteriorate, creatures of weak and shameless despair.

What is more natural than for people to join in throwing the handiest objects at the croaker? The impulse is human and common. The people have no use for a man or a management filled with bitterness and inefficiency, devoid of energetic action and confidence in the future.

I recognize the fact that in the smaller plants the manager must perform many duties, yet between the technical detail and the question of public relations my advice is to take care of the question of public relations first, for it is by far the most important.

It is wholesome for us to try to see our faults as others see them. Try to get the other person's point of view. Let us stop complaining when we ourselves are to blame.

Are any of us so foolish as to imagine that the business of serving the public with electricity is a task in which we may expect a continual succession of smiles, and kind words and sweet thoughts. The complaints, the misunderstandings and a certain proportion of ill-nature are simply parts of the game, to be looked upon as every-day business problems and to be handled without heat or hysteria.

It is far easier to find the man of professional training to handle technical emergencies than it is to discover an individual combining the gifts of the executive and the diplomat—a man who can succeed in popularizing his institution against overwhelming odds.

There is a sharp difference between the kind of ability which does things behind closed doors with the aid of science, and the kind of ability which satisfies the multitudinous demands,

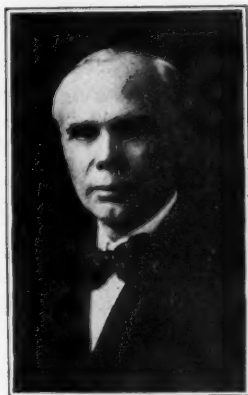
needs and prejudices of a large number of people.

It does not follow that, because a man is equipped mentally so that he can construct a great central station property, he is the right man to manage the property and to make the undertaking a commercial success.

Let managers keep themselves free from petty details, particularly technical details. They should organize their force so this can be possible. Their first duty should be to popularize the company, and to see that it occupies the position in the community which it deserves, both as a right and as an obligation.

### Super-Specialization

*By Paul Lupke, Superintendent Public Service Corporation of New Jersey, Trenton*



Paul Lupke

It is not specialization in itself that is harmful, it is super-specialization to the exclusion of general consideration. That is the condition which threatens to arrest further rapid progress.

Let me be specific to make myself clear. If I should now, in this assembly, ask a question concerning some intricate, technical, commercial or accounting problem, who doubts but what a highly trained specialist of one or the other departments would be ready, on the instant, with a satisfactory answer; and yet, on the other hand, suppose I asked point-blank,

"What are the main considerations that govern your conduct in the actual performance of your duties as an officer or employee of a public utility company?" would you be ready to answer without hesitation? And if I suggested at random a round half-dozen such considerations as safety of the public, safety of fellow-employees, adequate service, fair return to the investors, equitable treatment of consumers, just remuneration of employees; would you have to hem and haw and think awhile if I asked you to place them in correct order of precedence and to give valid reasons for this order and to arrive at conclusions you would be willing to live up to, day after day, in the routine of your duties, whatever they may be?

It will not do to pooh-pooh these things aside; in fact, if you feel that way now, you would better recognize the feeling as one of the early symptoms of incipient super-specialization and that you are suffering from a slight attack. For these considerations are not exclusively exalted and general policies reserved to occupy the mind of the President only; they are common realities that enter in one way or the other into the every-day work of the employee down to the humblest station; indeed, you can recognize just to what extent this beneficent generalization permeates an entire system in the inflexion of the voice of the telephone boy when you hear him say "Hello."

I know of a fireman, a Polack, if you please, who, on a bitterly cold winter night after working his shift, trudging home in the small hours of the morning, went three blocks out of his way to hunt up a telephone to tell the night inspector that a street lamp was out. He was not super-specialized, and this graceful little act did not hamper him in being a good fireman. Again, I know of an expert lineman who passed a dangerous broken wire unheeded, and who, at a subsequent coroner's inquest, calmly stated that it was a light department's wire and that he worked for the railway

department. He represents the type of undesirable specialist I am aiming at.

Not always are the manifestations of the disease so glaring and the consequences so drastic, but its pererrations are manifold and various, and the recognition and eradication of the evils that are likely to follow in its wake are well deserving of attention.

There is, for instance, the blighting bane of hide-bound department narrowness, causing each to constitute itself into a stronghold surrounded by a spiked fence, barring interference, no doubt, but helpful suggestions as well. Out of this condition grows a tendency towards diminishing interest in the welfare of the company, as a whole, that in severe cases might even cross the zero-line of indifference. Not often does this state of affairs find voice openly; it is rather a sub-surface sentiment, and for that reason all the more reprehensible and pernicious.

On the other hand, the neglect of general over-all considerations may lead to reckless department over-enthusiasm, the effects of which are not all beneficial. I hope you will take me as good-naturedly as I mean it if I venture to cite a few possible cases. It is quite feasible that the purchasing department might save enough money on lubricating oil to ruin your equipment and demoralize your engine-room force. Frenzied new-business-getting methods are occasionally so successful that a customer's first bill proves to be his last. Rules and regulations are now and then so explicit, and various requirements follow each other in such logical and extended sequence, as to protect the company effectively against the persistent assaults of anxious prospects. It is entirely possible to collect your bills so promptly and sharply that the amount collected will be materially reduced. It would not be at all difficult to lengthen this bill of particulars considerably, but I assume that you understand what I mean. If matters of this kind are allowed to drift there



will finally result a fatal case of what Fagan has correctly designated as "department paralysis."

Let us now consider the influence of excessive specialization on the individual employee. It has first a tendency to develop exaggerated ego. The narrower a man's horizon becomes the greater his own importance looms up to him within it. In so far as a man realizes that the part he plays in the business, no matter how small that part is, is important, he is wise; but when he begins to imagine that his part, no matter how great it is, is the only important part, he is foolish; he simply consigns himself automatically to the category of little men. You should keep in mind that there are always more little men than little jobs, and there are always more big jobs than big men, and the search to make up the deficiency goes on forever among those who, besides being good engineering, operating, commercial or accounting men, manage to demonstrate that first of all they are good company men. In the very nature of things, big jobs must be above any one single department.

The specializing process of a large organization inclines towards rigid mechanical treatment of men, and this should be counteracted by judicious application of a high-grade humane lubricant to avoid grinding and cutting. In general, while we are, voluntarily or otherwise, treating men less and less brutally like machines we are, nevertheless, treating more and more men, unwittingly perhaps, subtly like machines, and if you treat a human being as a machine at all you are creating the most unreliable combination imaginable, for, at unexpected moments, the thing will think in spite of you, and then, not being used to the process, its actions are beyond all calculations and the results only too frequently disastrous.

The fact that a corporation has no soul imposes upon every employee, high and low, the duty to clearly demonstrate on every occasion that he has one. Practicing that doctrine

will of itself eliminate the very worst consequence of super-specialization that is likely to arise—I mean the specialization of responsibility. Of this I have cited an extreme case before. Happily such instances are not common, but the mental attitude that might be expressed in the words, "Let them find out for themselves, it's none of my business," is all too prevalent.

No doubt, in most cases, it is physically impossible and theoretically and practically wrong to meddle with things not in the line of your immediate duties, but if you have the spirit of true loyalty to your company, there is no better way of exercising it than by quietly and persistently doing your part in guiding everything that needs correction into the proper channel for immediate attention. But do not spoil your good intentions through the exaction of instant and specific credit for every little act of this kind. Rest assured that the sum total of them will be acknowledged in due time and paid for in full.

### A Plan to Interest National Advertisers in Electric Advertising

*By Frank B. Rae, Jr.*

The threefold problem appears to be this:

(a) To educate national advertisers and advertising agents to an understanding that electric signs are *advertising*;

(b) To place at their disposal the proper data from which they can estimate the cost and value of electric advertising in the same manner as they estimate the cost and value of magazine space, newspaper space, street-car cards or bill-board displays;

(c) To keep electric advertising as constantly before their eyes as other methods of advertising.

To solve this problem requires a well-rounded plan, which should be carried forward for at least a year, and thereafter as long as the propaganda seems profitable.

### Outline of Proposed Plan

The available methods of educating the advertising fraternity to an understanding of the service we offer them, are well-known to us all and require only to be put into operation. We should write them letters, bombard them with printed matter, send a representative to discuss and explain our proposition and keep the matter constantly agitated by means of articles published in the advertising men's magazines.

This is not so large an order as at first appears. There are not above 100 first-class advertising agencies and not more than 250 national advertisers immediately available as prospective users of electric advertising. These agencies and advertisers can be kept in a frenzy by our written and printed appeals at a total cost of not above \$1,500 annually, which would provide for the mailing of a letter, a post-card or a designed circular every week for a year.

The matter of having our representative make personal calls is also comparatively simple, for the prospective customers are, within reason, restricted to the half-dozen big cities of the country, and it would not require a great deal of travelling to reach them. A representative at \$1,800 a year, a stenographer at \$700 and an expense account of \$700 should take care of the personal calls and individual correspondence.

Articles for the advertising magazines are even simpler. The woods are full of hack writers who can be employed at a cent a word and the advertising magazines will jump at their offerings. This matter has been tested by the writer, and the editor of a leading advertising journal has actually offered to print an article by him on this subject; doubtless this same editor would print other and better offerings. Let us set aside \$300 for this purpose, which would provide for fifteen 2000-word articles.

Then the advertising clubs should receive attention. With this idea

in mind, the writer talked with the Secretary of the Chicago Advertising Association, who stated that his club would be glad to listen to an address upon the subject of electric advertising. Several of the delegates here present have already given addresses and there seems no logical reason why many more should not be given if we have some one in charge of this work to take the initiative and arrange the preliminaries.

The next item is the gathering of data on sign location, rates, "circulation," etc., and the distribution of this data to the advertisers, agents and clubs. There is published here-

*National Electric Light Association  
United Engineering Societies Building  
25-39 West 39th St., New York City*

### ELECTRIC ADVERTISING DATA

Sheet.....Issued May 25, 1910

TOLEDO, OHIO

[cut]

*Location:* The location here pictured is the roof of a two-story "flatiron" building at Summit and Smith Streets.

*Circulation:* Summit Street is one of the best-lighted streets in America and carries a very heavy night traffic, while Smith Street is the convenient highway to a prosperous residence district. Checkers report the traffic actually passing this corner throughout the week as follows, between the hours of 5.30 and 11.30 p.m.:

Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Av.
<i>Pedestrians</i>						
248	292	301	287	252	409	298
<i>In Autos or Carriages</i>						
97	99	164	159	108	213	140
<i>In Street Cars</i>						
490	601	1120	963	527	1483	864

*Terms of Roof Rental:* The owners of the property demand a 12-month lease, at \$22 per month, with bond by the advertiser covering possible damage or injury.

*Cost of Maintenance:* The Toledo Railway and Light Company make a flat charge of \$2.40 per lamp per year, which covers lamp renewals, sign cleaning and current for a 4-cp lamp burning six hours per night, 365 nights per year. The minimum number of lamps for which this location will be leased is 1000.

*For Full Details regarding this and other locations in Toledo, address The Toledo Railway and Light Company, Toledo, Ohio, or Commercial Secretary, National Electric Light Association, New York City.*

with a sample data sheet which suggests the lines which should be followed. These sheets should be of

standard size for filing. Since not every member of this Association can expect to secure national advertising signs, the cost of these sheets and their handling should be met by those companies which have favorable locations and whose data is published. The cost of such sheet would be nominal and the labor of codifying the data and attending to its publication could be a part of the work of the paid representative.

The above suggestions are, of course, crude and tentative, as it is realized that this body does not desire to consider details at the present meeting. They hint at the possibilities and the methods, however, and indicate the general scheme upon which a definite and successful plan of campaign can be based.

#### Financing the Plan

The all-important question, however, is that of finances.

The writer realized, when first confronted with this problem, that something more than a pretty plan would have to be submitted for your consideration if definite action is to be expected. He therefore approached several manufacturers of electric signs and sign lamps with the idea of winning their co-operation in a plan which would be of broad scope and mutual advantage. In enlisting such support, he was met much more than half way. Only four manufacturers (with whom the writer was personally acquainted) were interviewed—the National Electric Lamp Association, Valentine Electric Sign Company, A. & W. Electric Sign Company and the Federal Electric Company. The result of these interviews was a signed subscription to the amount of \$1,750. It seems reasonable to expect that this amount may be largely increased by subscriptions from other responsible manufacturers. The only string to the subscription already obtained is the proviso that the total fund appropriated to this work shall be not less than \$5,000.

The plan as outlined can be carried on for a year for that amount.

#### Action Requested

Gentlemen, the question is before you. You have one-third of the necessary funds already pledged; you have the writer's assurance, given as an advertising man, that the plan outlined is feasible; and you know of your own experience that something of this sort must be done if electric signs are to be established as an accepted and standard medium of advertising.

What is your answer?

#### The Electric Vehicle Opportunity

*By Hayden Eames*

The essence of the whole question of the introduction of electric vehicles is that of the education of the public in their proper application, care and operation, and no one is in better position to co-operate with the electric vehicle manufacturer in advancing this education than this honorable body and its individual members. The heavy work of education, while perhaps not yet entirely effective, has been going on for the past ten years. The problem now is to localize it, particularize it, and bring it home to the user.

Unfortunately, the educational problem is obscured by a confused terminology. Such minor mistakes as have been made in the design of electric power wagons have come from an attempt to apply to road traction the principles and standards of railway practice; these are, as a matter of fact, closely, but falsely analogous. The differences from railway practice are great enough to show conspicuously in the maintenance account, but the differences in terminology and standards are a perpetual source of confusion to the prospective purchaser.

While the conditions of street railway practice are various enough, the fluctuations from the average are trifling compared with the innumerable variations of road and street service,

variations which bear hard on questions of electric vehicle economy and maintenance. Now, it so happens that as far as the vehicle structure is concerned, most of these latter questions were solved for us long ago. In spite of the fact that from time to time wagon-makers have left the beaten path to experiment with some apparently original device, a careful perusal of the records (mostly verbal!) will show very clearly the general trend of development and distinguish easily between essential and unessential features. But, with the recognition and adoption of wagon methods of construction has come also a confused and irregular terminology, which



Hayden Eames

in turn has a marked bearing upon the questions to which this paper particularly desires to direct attention.

It is natural to assume that when a man goes out to buy something he knows what he wants and knows for what he wants it; but in dealing with a prospective customer for a power wagon, this assumption would be entirely wrong. You would be surprised to know how many large users of draft animal wagon installations there are who are ignorant of the elements which govern the economy of their use and who do not really know what it costs to operate them.

Some six years ago the writer made

a canvass of the city of Boston and found that, with two exceptions, heavy teamsters were ignorant of the actual cost of their operations, and made their contracts on an assumed cost per vehicle and team per day, based on custom. Discrepancies were charged to profit and loss without inquiry. It often happened, and still happens, that department stores and dry-goods houses leave the question of the arrangement of wagon routes to the wagon foreman, delivery man or teamster, who proceeds entirely upon custom, and without analysis of the matter. In the older cities certain delivery routes have been followed for years, as a matter of course. No doubt, they were established originally for some good reason, but this has disappeared, and may have been of an absolutely temporary character, wholly useless as a basis on which to rest a plan for prompt and economical service, but nevertheless followed year after year by one business house after another.

Draft animal service teems with situations of this kind, and the successful substitution of power wagons for draft animal service turns frequently on this general mental attitude.

Ten years ago an electric power wagon was put in the service of an express company in East Liberty. At the first snowfall the electric wagon, which was equipped with iron tires, had its wheels shod with steel cleats and had operated half a day before the horse vehicles in the same service were able to get their horses sharpshod and into the streets. The local express manager, however pronounced the electric vehicle unsatisfactory, because it took three-quarters of an hour to put the cleats on the wheels. When his attention was called to the fact that he had been nine hours sharpshoeing the horses his indignant reply was, "O,—, we have always been doing that."

We find this spirit everywhere and in most unexpected quarters. No effort toward the general introduction of electric vehicles will count for much



until this mental habit of the prospective user be broken down. As we have said before, no body of men is in as good or as strong a position to arouse a spirit of enquiry and fair-mindedness toward the subject as central station managers and their organizations.

Another prolific source of confusion, fundamentally arising from the same mental cause, is that of wagon ratings. An engineer, trained in railway service, naturally makes his factor of safety on rated load, and it is almost certain that this method will ultimately prevail in the construction of power wagons and that the terminology of prospective users will be accommodated to it, but there is so much educational work to be done that it is easier and safer at present to accommodate the construction of the wagon to the customer's terminology and ratings.

This is borne out by the many failures in the gasoline power-wagon field, which are directly traceable to this cause and which were predicted by those who had already learned the lesson.

Unfortunately, there is no positive, definite, universal or even national system of wagon ratings. The writer will never forget his astonishment when ten years ago he had pointed out to him two wagons of marked difference in structural strength, but with the same ratings. Inquiry developed the fact that one was a "dry-goods" wagon and the other a butcher's wagon, but no one could tell off-hand why they were so different and yet both were called 2500-pound wagons. Further very careful inquiry developed the very rational reason that the unit of increased load in one case was very much greater than the unit of increased load in the other, and, therefore, a very much larger factor of safety had to be provided.

Most of these apparent inconsistencies of construction, as distinguished from those of operation already referred to, are traceable to some good

cause. Unfortunately the terminology is not as simple as this. In different parts of the country, wagon makers rate their wagons differently, just as power-wagon makers and electric generator and motor makers formerly rated their wares for competitive purposes.

There are some parts of the country, as well as individuals in all parts of the country, that rate draft animal wagons by axle size. It is quite puzzling to an engineer to hear for the first time reference to a 1 3-8-inch wagon. Then we have an arbitrary distinction between a two-horse wagon and a one-horse wagon, varying according to locality and the kind of goods to be transported. We also have certain recognized types of express wagons, such, for example, as the "American 'B' Wagon," which refers to a particular type of wagon used by the American Express Company. The well-informed wagon manufacturer knows all these distinctions and all the various methods of rating in common use, although he seldom attempts to classify them. To mention a given rating on whatsoever basis conveys a definite idea to his mind as to what is wanted, but unfortunately the great majority of wagon users have not an analytical knowledge of this question. They know what they have been in the habit of getting and they know what they call it. When they come up against a power-wagon manufacturer or seller, they perhaps hear some other method of rating which seems to agree with their expectations, but which to the seller means something altogether different. A contract is closed with this misunderstanding, the vehicle is delivered and is unsuitable for the purpose. The purchaser does not look for the difficulty in the right place. It is his first experience with power wagons. He seldom restricts his criticisms to the particular wagon he bought and in pronouncing the power wagon a failure he "sets back" its introduction in that locality for months or years.



The attempt is usually made by the most progressive man in the community and is watched with interest by prospective users. The failure results in hit-or-miss experiments with all kinds of inventions on the part of his competitors, or the matter is entirely dropped in favor of man's old friend, the horse, with appropriate sentiment and slow music.

Misratings sometimes come to a good end. We cite the experience of one of the great express companies in this country, starting in a large city, many years ago, in the days of comparatively infrequent trains and correspondingly infrequent wagon trips with correspondingly heavy wagons. Years went by, trains and wagon trips became more frequent, the heavier loads were provided for by the so-called "route wagon," and the load per trip for the original wagon became lighter and lighter, but the express company continued to order the wagons for that particular station according to express company "specification number" so-and-so. Finally the day came for ordering power wagons, and the intelligent local superintendent insisted that the power wagon should have the same carrying capacity as the aforesaid specification number so-and-so. The vendor of the power wagon, in this instance, had not the field-force with which to investigate the case, nor could he bring pressure to bear to correct the agent's error, and, in consequence, the express company found itself using a Clydesdale to transport a pill box and *did not know it*. They were paying maintenance charges, for example, on 44 cells of 13 M. V. battery when they should have been paying on not to exceed 26 cells of 11 M. V.

Along came another manufacturer of electric vehicles who was entirely ignorant of wagon practice and who innocently overrated these vehicles on an engineering basis.

As a mere coincidence the rating he gave the vehicle was the same as the rating the express company had adopted on the aforesaid specification

number so-and-so. His vehicle, of course, answered the purpose, and the local express agent drew very disagreeable comparisons between the weight and expense of the two kinds of power wagons he used. In this he was entirely unjust, as the first wagon was really in every respect superior to the second but wholly unsuited to that Express company's purpose.

We could amplify this question indefinitely, but we believe enough has been said to indicate the direction in which the real missionary work has got to be done. When central station organizations have informed themselves on these questions, have recognized their great importance, and have made it their business to see that the first local power wagon shall be carefully bought and intelligently used, they will have made a long stride toward getting the benefit of this new market for current.

These things are intangible, but, after all, the whole thing is mental, and these are mental problems, the solution of which will produce an immediate and tremendous demand for current for power wagons. To make this education effective, to be in a strong position to regulate local introduction, to see that a proper application of vehicles is made, to see that, for instance, electric wagons are not used where gasoline wagons would give better satisfaction, and vice versa, it is essential that central stations maintain a judicial position. While, no doubt, every manufacturer would be glad to have the direct aid of central stations in the local distribution of his vehicles, this could not fail to retard local educational work. It would undoubtedly stimulate large competitive interests to an active propaganda in favor of independent power stations, and these, in many cases, would be amply justified by the amount of power-wagon current required.

Under existing conditions, the most healthy, strongest and most promising line of action for central stations

will be to establish themselves as sources of information and to use the moral influence this will create to ensure for their localities, always under their own tacit control and direction, the full benefit of the efforts of all competitive electric wagon manufacturers.

In many cases by the exercise of tact, foresight and proper organization, this can be done and it will ensure a quicker return on money and a greater increase of business in electric current than any other form of expenditure in the power-wagon direction.

### Electricity on the Farm and the Influence of Irrigation

*By Herman Russell*

The modern farmer wants electric power on his farm, and he is willing to pay for it. That this is the case is shown by the increased use of electricity in rural districts. Here and there all over this country—in New York, Illinois, California, Colorado, and, in fact, in almost every State of the Union—are to be found today farms partially or completely equipped with electric power. The reasons for this wonderful growth of electric use on the farm are not hard to find nor difficult to understand. The improvement in country roads, the growth of the automobile, the extension of the telephone and rural delivery service, have brought the city and the country closer and closer together, with the result that a farmer and his family are no longer an isolated set of individuals, out of touch with the world and modern progress. They are being educated to enjoy the comforts and so-called luxuries of life. Again, many of our best modern farmers are intelligent business men, college graduates, lawyers, doctors and professional men from the cities, who have been attracted to the country by its independent, healthy life, and the money-making possibilities that scientific farming and high-priced farm products offer

at the present time to the earnest worker. Farmers of this class—and this class are destined to be the farmers of the future—are alive to the many advantages and comforts which electric power offers to the farm.

The increasing difficulties of securing competent farm labor make it imperative that the farmer install labor-saving machinery, both to lessen the number of men he must employ, and to make the labor easier and the hours shorter for those upon whom he must depend. In the past the life of the women on the farm has been one of constant drudgery and maddening monotony. The farmer of today is awake to these problems, and he is using electricity to solve them. Electric lights mean comfort in the farmhouse and a lessening of the fire hazard. By providing suitably lighted buildings, work can be done more efficiently; that is, more work and fewer hours. Electric power with its factors of safety, reliability, cleanliness, flexibility and ease of application is peculiarly adapted to farm use—to pumping water, driving conveyers, running churns, separators, feed cutters, milking machines and grinders; to operating hoists, spraying machines, saws and machine tools; even to doing the household washing and ironing, and providing a cold storage plant. For these purposes, and many more, electric power is now used on the farms of the country. In Europe, where much greater progress has been made than in this country, ploughing, cultivating, etc., are being done with the aid of electricity.

The use of gasoline engines for driving small generators, which in turn are used to charge storage batteries supplying electric light, is becoming very common. The advent of the tungsten lamp has aided materially in making this development possible. Manufacturers of farm machinery have taken up the subject and their salesmen are everywhere urging and showing farmers the advantages to be had from the use of electricity. The makers of electrical machinery are

paying especial attention to the rural field, and are making small complete electrical outfits for farm use.

Recently there has sprung up in many sections, especially in the Western States, a demand for power on the farms, which is so large and the nature of which is so attractive from a load standpoint, that, in the mind of the writer, it promises to justify for its satisfaction a very large expenditure on the part of service companies. I refer to the use of electric power for pumping water for irrigation purposes. All over the West water is being pumped electrically from wells, rivers, lakes and ditches for irrigation use. Large government and private company undertakings are now supplying water in this way for thousands of acres. Individual farmers, wherever electric power can be obtained, are installing pumping outfits and irrigating their own land, thereby saving the cost of water rights and maintenance charges, while obtaining water at a very reasonable cost when they want it and where they want it—a condition not always reached with gravity systems.

The irrigating pumping load is especially attractive to a central station man, because it means a large power consumer who is strictly an off-peak customer. Power is used entirely during the summer months, and by special rates is in many cases used during hours of the day when there is almost no other load. On the other hand, irrigation and intelligent agricultural methods, largely resulting from irrigation, have opened up wonderful possibilities in the culture of the land.

Irrigation, then, offers a big use for electric power in the country, which brings the transmission line to the farmhouse, and thereby makes possible all the smaller uses for the farmer, and at the same time so increases farm values and returns as to result in closely settled communities whose members offer the company much good business.

It is plain then that in the Western States irrigation is having a very

marked effect in inducing the service companies to extend their lines into the country. How then about the Eastern and Southern States? Is there promise of any such attractive load to induce the companies in these sections to build out into the country? It is my opinion that the time is rapidly coming when the practice of irrigation will not be confined to the arid and semi-arid regions, but will be general throughout the United States. Already the farmers of the Middle West and the East, stirred by the wonderful tales of increased productivity, which are being brought to them from the irrigated sections of the West, are beginning to feel that possibly they are lagging behind the times, and that supplemental irrigation in the East must be practiced if they are to keep pace with their Western competitors.

The farmer of the future to be successful must, in so far as possible, be independent of the elements. Then, he must put himself in a position which will enable him to get the most possible out of his land. If we are to feed this country, and keep the present high price of all food products from going still higher, farmers must very materially increase their yield per acre. Speaking from the point of view of an Eastern farmer, I believe it is essential to supplement our rainfall by irrigation. There is no section of the country at the present time that does not suffer almost every year from drouth during the growing season. We go to great pains to insure our homes and places of business against loss by fire, and yet we stand idly by and watch our farms burn up. Is it not time that the farmer everywhere take out drouth insurance by installing an irrigating system? These systems will, to an even larger extent than in the West, be pumping enterprises—electric, steam, or gasoline, as the case may be. The same factors that operate to make the irrigation pumping load attractive to the power companies of the West apply with even greater force in the East, and there are many conditions that

make the problem of extending service into the country easier of solution. Smaller farms, more closely settled rural sections, numerous interurban trolley systems, lower costs of construction, all work favorably. The development of a demand for electric power for irrigation pumping among the farmers of the East has therefore a very important bearing on the question of getting central station distribution into the rural sections.

The considerations which I have outlined above have caused the Rochester Railway and Light Company to inaugurate a novel new business campaign. The writer has been delegated to give special attention to the subject of irrigation for the purpose of demonstrating to the farmers around about Rochester that it is to their interest to practice supplemental irrigation. A pumping plant has been installed on a fruit-farm near the city, and experiments are being conducted. Last summer a peach orchard was irrigated with such remarkable results that already a great deal of interest has been aroused, and a number of farmers along the shore of Lake Ontario are installing pumping plants to supply water for irrigating their farms this summer. At Irondequoit, a market-garden town adjacent to Rochester, the Company is now supplying current at regular rates to more than forty motors for farm use, most of which are for pumping water.

The demand is increasing rapidly, and promises to reach large proportions this summer. Many farmers have inquired eagerly of the writer when we were going to be able to supply them with power, and it is evident that the demand will soon justify numerous extension of lines into the country. The campaign is one of education both for the farmer and the company—one that is interestingly constructive.

There is at the present time no good reason why the well-to-do farmer of the present day—and most of the farmers of the present day are well-to-do—should not enjoy all the benefits of electric light and power as well as his city cousins. Is it not time for the service companies to turn their attention to the farm? The business is waiting for them. All the arguments against the private plant, initial expense, lack of skilled mechanics, reliability of service, elimination of storage batteries, apply with greater force in the country than in the city, and work in favor of central distribution.

I look forward to a time not far distant when electric lines in the country will be as common as telephone and telegraph lines are to-day and the present enormous idle investment of our central station companies will be employed in making our farms more productive and life more worth the living for both the farmer and the company—at good profit to each.

## A Dollar Idea

Wm. H. Wells, District Agent  
Edison Electric Illuminating Co., Brooklyn, N. Y.



**W**HENEVER we sign a contract with a business man two or three manufacturers and jobbers handling appliances the new customer could use are notified to call and solicit his order. This practice furnishes leads to the sellers of electrical goods, and increases the kw. consumption for the company in a great many cases.



## What the Manufacturer is Doing for the Central Stations

*Co-operative Advertising Campaigns Are Being Offered to Central Stations to Increase Popular Use of Electric Light and Widen the Market for Incandescent Lamps*

The word "co-operation" was invented by an incandescent lamp man. Others have used it, of course, for it is a good word and stands for progress and development worked out on an anti-friction basis, but the fact remains that it was invented by a lamp man and has been the battle-cry of the lamp industry for a good many years. And the records show that such lamp makers as have not subscribed to it as a creed, slogan and basis of procedure, have had ample leisure and cause to regret their unwillingness to "play the game."

Co-operation in the broadest meaning of the word is the keynote of the latest business-getting plan offered to the central stations of the country, and quite naturally it is the plan of the lamp men. The twenty-three Member Companies of the National Electric Lamp Association, the General Electric Company, the Westinghouse Lamp Company and the Franklin Electric Manufacturing Company have all joined advertising forces to offer to the electric lighting industry a series of advertising campaigns which, in breadth and scope, quite overshadow anything of the sort of which we have record. The plan is a simple one, but like a good many simple things with which we are all acquainted, it represents an unexpected investment of money, time and labor. Its success we must credit primarily to the advertising genius and Job-like patience of Mr. Philip S. Dodd, who puts in 10 per cent of his time as Director of Publicity for the National Electric Lamp Association and the other 90 per cent in preaching the gospel of co-operation.

The campaigns are devoted to residential, commercial and industrial

lighting, and are cleverly designed to fit a great variety of central station commercial conditions. There are, altogether, some fifty pieces of direct-by-mail advertising, such as form letters, booklets, folders and bill enclosures, and about forty newspaper advertising designs with many changes of "copy" for each design. Every possible contingency in the way of



One of the "Pretty Girl" Designs

peculiar local conditions seems to have been provided for. There are pieces addressed to laboring men, clerks, men in salaried positions and millionaires. There are ads for people with and without children in the house, for old folk and the newlyweds. Such questions as eyesight, the matching of colors,



## A REAL BUSINESS MAN

That butcher who gives you three steaks and charges for one, has some reason for it.



We have a reason for offering you three times the light for the same money, or we couldn't do it. The reason is:

### BANNER MAZDA LAMPS

consume only one-third the amount of current that the old style carbon lamps do. Hard to understand? Come in and let us explain. You will be delighted with the brilliant melow light of the Mazda. Phone today.

**UNION LIGHT COMPANY**  
No. 4 Union Street

If they ask for Green, Mr. Storekeeper, give 'em Green



You can match colors absolutely under the light of the **COLONIAL MAZDA** Lamp, without going out in the street to prove it.

Not only will electric light with the **MAZDA** Lamp do this, but it gives your whole store a modern and up-to-date look that can be secured with no other illuminant.

Besides you will save money on your lighting bills.

Ask us about it.

**UNION LIGHT COMPANY**  
No. 4 Union Street

You can all read by one Lamp, if it is a Bryan-Marsh Mazda



It will give you three times the light of the old style carbon electric lamp, and at no increase in your current bill.

If you knew, you would use them. The light, too, is much whiter and more healthful.

Call on us to show you.

**UNION LIGHT COMPANY**  
No. 4 Union Street

## Beauty and Attractiveness



are features of the **BUCKEYE MAZDA** Lamp; Economy, Healthfulness, Cleanliness are among its attributes. We believe if you knew the present moderate cost of electric light, you would use it. Ask us about it and about the **BUCKEYE MAZDA**

**Union Light Company**  
No. 4 Union Street

## SAVE THE CHILDREN'S EYES



The **PACKARD MAZDA** Lamp will light one spot or the whole room with a soft, white, brilliant light, nearly akin to daylight, and for less money than you are spending now.

Give the children's eyes a chance and save your eyes and money.

**UNION LIGHT COMPANY**

No. 4 Union Street

evening reading, vitiation of the air by gas or lamps, decorative effects, insurance, the cost of wiring and the proper auxiliary electric equipment of the home are some of the points touched upon, explained and made clear. The dainty woman of taste is catered to with delicate appeals on tinted note paper; families that count the pennies have the pennies counted for them in cold, unvarnished talks on economy; there are "pretty girl" ads for people to whom that sort of thing appeals; and "human interest" ads for the kind whose heart-strings respond to references to the dear old home and baby's smile. If anything has been left out, it will take a very careful investigation to disclose the short-coming.

It is not the idea of the lamp people to give this advertising to central stations promiscuously or without charge, for in the first place, give-away advertising is too flagrantly wasted; in the second, these campaigns class too high and represent too large an investment. The plan is to sell the advertising to central stations who are conducting aggressive business-getting campaigns and to back it up, where practicable and profitable, with the work of expert lamp men and illuminating engineers. The price set upon the campaigns are about one-fourth of the bare printing and paper cost if they were issued for the exclusive use of one central station. Of course, this does not include the charges of the advertising experts who prepared the material, nor the expense of art work and color-plates.

The central station man who examines these campaigns will be struck, first of all, with the simplicity and directness of the arguments employed. We have been accustomed so long to consider garishness and freakishness as the test of advertising excellence that this simplicity is likely to be misleading. But look closely. Here is an argument on the economy of Mazda illumination. Does it not carry conviction in every phrase? And the booklet, "Mazda Means Electric Light

## You CAN Afford It-- MAZDA Lighting

There never was any question about the convenience and comfort of electricity—"But, then, it's so expensive." *That is no longer true!*

Electricity is now *cheap*.

A wonderful, new lamp—the MAZDA lamp—takes but one-third the amount of current of the former types of lamps. You can now have electric light for *one-third* of what it used to cost. Think of it! Electric light—and all that means—for one-third of what it formerly cost! And the light of this lamp is incomparable.

Then, with electricity in the house you can enjoy hundreds of other comforts, and make away with most of the drudgery of house-keeping. It cooks the coffee; toasts the bread; warms the room; heats the curling-iron; does the washing and ironing; grinds the coffee; chops the meat; and does a hundred other things.

But first, get electrically lighted. You *can* afford it. Indeed, you *cannot* afford to be without it any longer.

Call up the Lighting Company and say "MAZDA."

An Economy Argument

for Everybody." Can anyone connect-ed with your company, Mr. Central Station Man, write a better brief of your company's case to present to the jury of public opinion?

Nor is the artistic excellence of the advertising one whit inferior to the best material yet used by any lighting company. Here is a group of the newspaper designs—attention compelling in the extreme, and interesting, too. A dozen pieces might be cited which are veritable gems of commercial art, telling their advertising story in a persuasive way while satisfying the most critical artistic taste.

Several central station advertising problems have been solved in these campaigns in rather a striking way, notably the problem of convincing the householder that it is possible to wire an old residence without undue trouble, noise or litter. Every lighting man who has faced this problem knows how difficult it is to prepare advertising which will overcome the prejudice of home owners against the wireman, but Mr. Dodd seems to have accomplished the impossible.

Also, the color question is hand-

led cleverly in a folder entitled "The Color-True Light." Here we see reproductions of a number of different colored cloths as they appear under various illuminants. It is unfortunate that we have not the color facilities to show this example here, but we recommend those of our readers who have an opportunity to see the complete specimen books to give it a second-glance. It is at once a sales argument and a practical demonstra-



### *It Really Never Happens*

**W**IRING the house for electric light is NOT the formidable undertaking which many people suppose. It is NOT necessary to tear the house to pieces to install electric service. It is not necessary to break the plaster, ruin decorations, tear up floors or rip out partitions. On the contrary, the work can be done with LESS bother and dirt than is caused when the parlor carpet is sent to the cleaners.

The electrician of today works quietly and cleanly. He removes a board or two from the floors of a few closets. He makes a hole less than three inches in diameter in the plaster where the fixtures are to hang. By the use of modern tools and methods, he quietly "fishes" his wires between the floor joists and stanchions.

As much as possible of the work is done in the electrical contractor's shop so that there is the minimum of dirt, noise and trouble when the wire and fixtures are installed.

Electricity should be in every home.

Everybody, of course, knows that it is the cleanest, softest, most economical illuminant. Everybody knows the advantages of the electric flatiron, washing machine, chaffing dish, sewing machine motor and toaster. But not everybody yet knows that the wonder-

has cut the price of electric light squarely in two, so that it is today not only the most desirable, but the least expensive form of light.

**SPECIAL PROPOSITION**



A House-wiring Ad.

tion of the color-values of different illuminants.

Of course, a good many companies will look upon these campaigns with prejudice. It is a human failing to conclude that anything ready-made is beneath consideration. The adjective "ready-made" hardly applies, however, as the co-operative lamp advertising campaigns are designed

to fit so many different conditions that almost any company can find in the assortment exactly the advertising material it needs. Space is, of course, left available for the imprint of the central station, and in many cases space is also cleverly provided in which special local propositions can be printed at the same time the imprints are run.

Another point: the campaigns are not lamp advertising, but electric light advertising. It does not restrict itself to puffing a particular make of incandescent, but pleads earnestly the cause of central station service as a whole. Constant references are made to the collateral advantages of electric light,—to the convenience of the electric flatiron, to the labor-saving of the electric sweeper or vacuum cleaner, to the desirability of all the many small household utensils which follow in the wake of electric illumination.

While these campaigns are palpably and admittedly designed to increase the sale of incandescent lamps, they are conceived and executed with a broad-gauge appreciation of this truth: "The secret of increasing sales is to increase the market." The lamp men have set about increasing the demand for electric light, understanding that every new socket installed requires another lamp. The central station commercial man who seizes the opportunity which this co-operative plan holds out to him, will find himself a link in an endless chain which will bring profit to his company and prestige to himself.

### **Electrical Show for Denver**

A national electrical exhibition which it is promised will outshine in literal brilliancy anything ever seen in the west will be held in Denver next October. The Colorado Electric Club is fathering the enterprise with the co-operation of the Denver Convention League. John M. Connelly of the Denver Gas & Electric Co. and J. B. Griffith of the Nernst Lamp Co. initiated the movement.

### "Explosion Insurance"

The city of Springfield, Ohio, has recently suffered from a number of serious gas explosions. In one case a house was completely wrecked as a result of the occupant having carried a lighted lamp into the basement which was filled with escaping gas.

Mr. Egbert Douglas, General Manager of the Springfield Light, Heat & Power Co., has taken clever advantage of the consternation which these catastrophes have naturally caused among gas users by circulating a small folder entitled "Explosion Insurance."



The "Horrible Example"

This folder is the size of the ordinary post-card, as it goes into the mail, there being a double fold. The front cover bears a cut of the house that was demolished and is headed, "Explosion Insurance—Policy Form on Inside."

The reverse side reads: "*The Cause of Explosions.*" *First: The house is filled with escaping gas. Second: This gas is ignited by someone carrying a lighted kerosene lamp or match into a gas filled room.*

"We can offer no remedy for the first condition unless you cook with Electricity, but we can eliminate entirely the possibility of the second.

"On entering a gas filled room, the

electric light is the only one that can be used with absolute safety.

"We have had a number of serious explosions recently, resulting in loss with no chance for recovery from the Insurance Company.

"Why not use electric light, and charge off the cost of your light to Explosion Insurance?"

On page 3 is a list of the local contractors, and the balance of the space is devoted to a return post-card and a list of "What One Dollar's Worth of Electricity Will Do."

Several thousand of these folders are being sent out to all residents of the city who do not use electricity.

### Slogan Sign Proposed for Montpelier

In the city of Montpelier, Vermont, the merchants have inaugurated a "Merchants' Day," occurring on Thursday of every week. This is being advertised extensively in the newspapers. Since Montpelier is on a branch line of the railroad the Consolidated Lighting Company offered to maintain a large electric sign to be placed at the railway junction to advertise "Merchants' Day every Thursday" to passengers on the main line. The Central Vermont Railroad Company, however, refused to allow the sign to be erected on their property, the most desirable site.

The matter is being taken up by the citizens of Montpelier, and a determined effort will be made to force it through.

### Schenectady Sign Business

The Schenectady Illuminating Company has announced the formation of a new department, which will have for its object the promotion of the use of electric signs throughout the city. It is intended that the department shall act, not only as a selling department, but also in an advisory capacity to the local business men.

George E. Farnsworth will act as sales engineer of the new department.



## Recognizing the Advance Agent

By W. E. Bayard

It would be a good thing for the industry and for the public if every central station salesman, before going out to preach the gospel, could serve a short apprenticeship to an electrical contractor. There would be a deal more co-operation between the two interests.

"And how about the contractor?" you say. Yes; but the contractor by the very nature of his calling is *obliged* to foster the interests of the central station every hour of the day.

Ask any contractor how many times he is forced to explain the meter, the reason for the minimum charge and the justice of the maximum demand and sliding scale discounts. Ask him how often he sits down with a doubting prospect and argues the case of the electric light company, trying to overcome prejudice against "the monopoly" and prove by illustration that the public service corporation is a benefactor. It is such a common occurrence that it is taken as a matter of course, "part of the game," for the electrical contractor is in the unique position of one who sells the service of another and at the same time is unable to guarantee the delivery or even influence the character of that service.

That sounds a bit broad, but it is true, though naturally since the sole business of the central station is to make the delivery he can work with assurance. The point I make, however, is this: There can be no barrier to harmony and co-operation between the electrical interests in any community if the central station so wills.

The word "co-operation" premises to a certain degree parties of equal or nearly equal power, a situation where there is danger of back pressure and lost motion and which demands diplomacy and organization if friction is to be avoided. But the conditions obtaining in the electrical world differ in that the interests of all concerned

centre around the single point of electric service and popular appreciation of that service. The very existence of the contractor is practically dependent on the central station, for without dependable service the market for current and the contractor's livelihood disappears. Therefore, the natural tendency for him is to align himself with the light and power company for the mutual good. But in reality, as we all know, actual conditions fall lamentably short of this in too many cases, for the central station man is prone to forget that the contractors and dealers are, after all, his advance agents, to be coached, coaxed and continually encouraged and supported like any other salesmen.

Let any man who doubts, look into the experience of such cities as Denver, Scranton, Dayton, Easton, Providence, or any other town where the central station today stands as the most progressive local institution. It will be found that in every case the electrical interests are working in close harmony and uniting their efforts toward the education of the people in the virtues of the electric life.

It is inevitable that there should be a certain percentage of the public who are doubting Thomases who look with suspicion on all monopolies and most individuals and prefer in all cases the opinion of some "unprejudiced party." These people are appealing continually to the contractor to bear witness to some act of the lighting company, some disputed bill or other fancied grievance, and in the interests of his own business he explains and mollifies. For there is a personal relationship between the average consumer and his contractor, such as is hard for the company to establish.

The factory owner decides that his lighting is poor and his bills too high, and rather than appeal to the central station man, whom he fancies profits

by those very conditions, he sends for the "electrician" and says, "What can I do to cut down the cost?" This man probably has done his odd jobs for years with prospect of more to come and the consumer knows that his advice will be fair and competent. Moreover, electrical matters are still considerable of a mystery to the average man and he naturally feels that in his dealings with the company he is acting more or less blindly, so the contractor is apt to be his authority. The power of the contractor, therefore, is great for good or harm, but with all his own selfish interests so closely knitted to the welfare of the central station, co-operation is clearly the course of mutual profit.

Some central station men have apparently developed the idea that the average contractor is not sufficiently responsible to be considered as a co-worker and a power in the field. There are men who scoff at the talk of the interdependence of the two interests, looking on the contractor as a mere mechanic who lacks the dignity of calling which would qualify him as a co-member of the council. But there are few cities without one or two responsible contractors, men of experience and standing in the community, who are on terms of intimate business relationship with the largest consumers of electricity. Whether these contractors have impressive offices and stores matters little. They are primarily mechanics and there is many a good builder who carries his office in his hat. Their value to the electric company lies in the work they do and the words they speak.

As a usual thing the live enterprising contractor is found in the town where there is a versatile, hustling central station sales manager, and inversely, where the power company is dormant the contractors are rarely progressive. Occasionally you hear of some man who refuses to be curbed and in spite of discouraging environment succeeds in waking up his town and forcing the central station to grudgingly keep pace, but I know of

few such instances, for the voice of the station is dominant and few men attempt the resurrection of even a near-corpse.

It lies with the man who sells the output of the generators, therefore, to enlist this militant force in his own ranks—and to do more than that—to secure a band of independent workers who can do more to actively sweeten public opinion than any other agency. But the first principle, the fundamental policy, must be absolute fairness in the matter of profit protection: the contractor must be protected. No man who refuses to let him earn his honest margin on motors and heating appliances can expect the whole-souled, free-handed support that is of such value. When the central station is willing to offer current at cost to aid the contractor in closing such business, then it may expect him to look with equanimity on the sale of appliances at cost.

There is really no reason why the central station business should not be conducted on a true business basis of reasonable profit on every sale. There is too much of such "self-competition" practiced. To quote from a recent editorial which appeared in *Selling Electricity* (March, 1910):—

"The central station man 'in competition with himself' is generally a victim of ignorance—if not that, then of fear. He does not know or realize the value of his company's service. He is not convinced that the price asked is a fair price. He has not analyzed generating and distributing and selling costs sufficiently to know that current which represents two cents at the station switchboard may be worth twenty at the customer's meter. He probably has the same exaggerated and baseless ideas of central station profits as are held by the yellow press and the greater number of the public. In short, he doesn't know his business—unless, indeed, he is a victim of fear, afraid to stand up in the face of opposition and argue for his honest convictions. The

cowardly salesman is practically hopeless: let's forget him.

"This ignorance, though—ignorance of the basic principles, not alone of central station business, but of all business—is something too common for comfort. Out of it are born such errors as the free wiring offer, the giving away of heating appliances and the making of contracts below cost because the installations promise to be of advertising value. Out of this ignorance are also born the special rate, the employment of high efficiency lamps and scientific reflectors on the anti-wattage basis, and the fatal error of side-stepping publicity. Errors comparable to these are seldom or never made by successful mercantile establishments. For instance:—

"The coal dealer does not give you a kitchen range in order that you may burn his coal;

"The butcher does not supply you with a carving knife in order that you may cut his meat;

"The tailor does not give you clothes in order that you may become his walking advertisement;

"The street car conductor does not give a 20 per cent concession to the man who argues that the fare is too high;

"The grocer does not recommend a diet of gluten bread and the abolition of olives to reduce his bills;

"The picture dealer does not deny the newspapers an opportunity to view and report his exhibitions.

"Yet the central stations of the country, by and large, commit all of these errors of business judgment—at least they make errors as ridiculous, from a business standpoint.

"And why? You will find many apparently sound excuses given. You will find plausible arguments advanced as to the necessity of making concessions, increasing expenses, reducing net earnings and dividends. But when you come to strip the arguments from the acts and get down to the naked and unlovely truth of the whole matter, you will find that the man who

makes these mistakes is simply 'in competition with himself.'"

Every broad gauged central station sales manager in the country who heads a force of salesmen, is trying by such methods as seem best to him to raise the efficiency of his men and show a constantly improving record of progress. A good many of them are overlooking the fact that their most influential boosters should be those advance agents who do not figure on the pay roll—the contractors. The demand for electricity in the home and everywhere else, for that matter, will expand and develop as the popular education and appreciation advances and takes root. It will affect every branch of the industry, central station, manufacturer, contractor and supply dealer, and the greater the co-operation and harmony between them, the more comprehensive and compelling will be their suggestive influence and the more rapid and complete the development of their market.

#### Sign Campaign in Joplin

A special sign campaign was recently inaugurated by the Empire District Electric Co., Joplin, Mo., which resulted in one month in the sale of twenty-one electric signs, aggregating 2200 4-candlepower lamps.

Mr. J. E. Harsh, Commercial Manager of the Empire District Electric Co., said: "An interesting feature of this campaign was the fact that 1800 out of the 2200 lamps secured were 4-candle-power tungstens, connected in multiple. The signs using tungsten lamps were secured on two-year flat rate contracts at 15 cents per lamp per month, with free lamp renewals."

#### H. F. Holland Joins Simplex Company

Mr. H. F. Holland, well known as the Chicago representative of the Pacific Electric Heating Co., has joined the forces of the Simplex Electric Heating Co., of Cambridge, Mass.

Mr. Holland will represent the Simplex Company in Chicago.

## A Dollar Idea

A. G. Rakestraw  
Allegheny County Light Co., Pittsburg, Pa.



**H**ERE is a new card we are using for our general index, which shows the situation in each building connected to our lines and the history of the service which has been furnished. In this case the original owner sold his house to John Smith, who remodelled it for a candy store. After being open a few months, his business prospered to an extent that encouraged him to use current more freely and secure a better rate. He had a fan two successive sum-

ADDRESS <u>7539 Main St</u>		TOWN <u>City</u>					
NAME	RES. OR BUS.	RATE	CHAS.	INSTALLATION	TERM	IN	OUT
Brown, Geo.	Res.	10	.50	10-16 s	1 yr	2/1/05	4/1/06
Smith, John	Bus.	10	.75	25-16 s	1 yr	5/1/06	1/1/07
"	"	8	1.50	25-16 s	2 yr	1/1/07	1/1/08
"	"	"	3.00	1-1/2 Fan	3 mo	4/1/07	7/1/07
"	"	"	3.00	1-1/2 Fan	4 mo	5/1/08	7/1/08
"	"	"	3.00	1-Flamer	1 yr	7/1/08	7/1/09
Adams, Saml	"	6	5.00	75-16 s	5 yr	4/1/09	

SEE OTHER SIDE FOR REMARKS

mers on a flat rate and in the fall of 1908 he contracted for a flame arc, also on a flat rate, which continued until he sold his place to Mr. Adams the next spring. Adams opened a drug store, increased the equipment, put the flame arc and fans all on the meter circuit and made a five years' contract at a much lower rate than either of his predecessors.

This additional detail is entered on the back of the card.

### To Outshine All Other Streets

A movement is on foot to make Seventeenth Street, Denver, Col., "the brightest street in the world" by actual count and measurement. The Denver Gas & Electric Company has prepared the plans, which have been accepted by practically all the business men on the street.

The committee will take account of the candle-power now in use on the street block by block, comparing it

with that on Fifteenth and Sixteenth streets. It can then be figured how much additional light will be required to make Seventeenth brighter than the others. In the back, between Arapahoe and Curtis, one man has agreed to maintain 1,800 candle-power on his seventeen foot front, and this is a fair indication what all will do. Another merchant in the same block will use 1,200 candle-power. Fancy brackets will be hung at regular intervals on the buildings

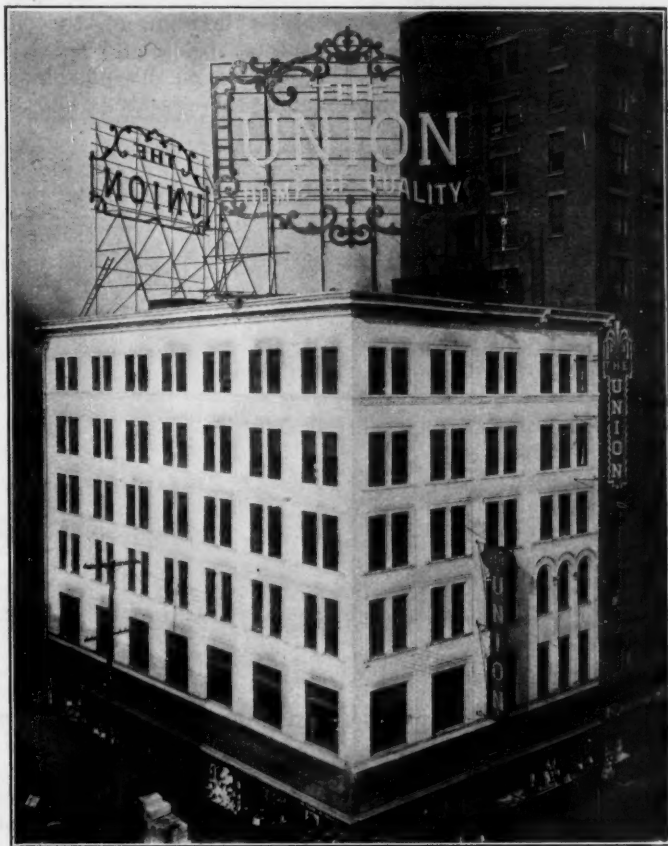


## A Sign That Grew

By A. Larney

Some five years ago the Union Clothing Company of Columbus, Ohio, purchased an electric sign containing about 300 lamps, which was erected on the High Street front of their building, directly over the entrance. They were doing a considerable amount of bill board and

ods, the company has steadily prospered, and recently while adding two stories to their building, it was decided that precautions should be taken to make the roof strong enough to carry the largest electric sign in the city. As Mr. S. M. Levy, the manager, expressed it: "We're introduc-



Four Signs on a Columbus, Ohio, Department Store

poster advertising, and it was felt that the object of such publicity could not be realized to the fullest extent unless the location of the store itself was firmly impressed on the public mind. An electric sign seemed to be the best medium.

As a result of such progressive meth-

ing some metropolitan ideas in electric signs, that's all. If the merchants of Columbus can become famous for the electric display on their buildings, it will not only assist in advertising their business, but will be a boon to the city itself. We do not want the sign to establish our business, for every

man, woman and child in Columbus knows we are here; *but we do not want them to forget it*, and that the electric sign proposition is the only one that will accomplish this purpose, we know by experience."

Immediate steps were taken to determine just which position would give the new sign the greatest advertising power, and it was finally decided to install not one, but three signs, two on the roof and one high upon the face of the building, the old sign, however, to still remain in service. This was done, and the accompanying photograph shows the result—how one small sign has grown to four, with 2,400 lamps instead of the 300 of the initial installation.

The larger of the roof signs stands 60 feet high, and operates green, red and natural lamps on a flasher. The roof sign facing the rear is 59 feet high, though the sign itself is considerably smaller than the other. It also flashes. The new sign on the High Street front is 40 feet high and operates on a flasher producing a very attractive fountain effect. The combination gives the widest possible range of display and the Union Clothing Company today has the most talked-of store in the state as a result of this evidence of enterprise, for it is literally impossible to glance down town from any point in the city, without being reminded of this establishment.

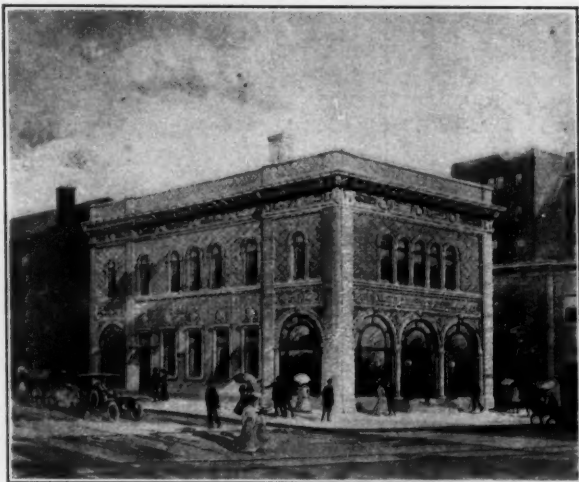
#### Hickox Joins Byllesby Co.

Mr. Norman B. Hickox, formerly manager of New Business for the S. S. Bush properties, has severed his connection with this interest and has joined the forces of the H. M. Byllesby Company. He will be located for the present at Muskogee, Okla.

#### New Haven Company Opens New Building

The new building of the United Illuminating Company of New Haven, which was opened to the public May 19, is said to be the most elaborate central station building in New England. It stands on the corner of Temple and Crown streets, a prominent location, and even in that city of magnificent university buildings, is a striking ornament to the town.

The exterior of the structure is tapestry brick and terra cotta, with panels of Sienna marble and a base course of granite. The show room



New Office at New Haven, Conn.

and office is finished in marble and mahogany with heavy beamed ceiling. There are large show windows and ample facilities for connecting and displaying various appliances in all parts of the room. The illumination is obtained from six large cluster pendants and frosted balls studded over the ceiling, some 400 Mazda lamps being used.

The second floor is devoted to the officers' and directors' rooms and general offices, which are decorated and furnished with the same degree of richness and good taste which characterizes the entire building.

## "A Solid Mile of Light"

Through the efforts of the Merchants' Heat and Light Company, Indianapolis can now boast of an ornamental street lighting system, equal in artistic effect and also from a lighting standpoint, to anything in the country.

Washington and Meridian streets have undergone such a change during the past few months that the traveler upon returning would hardly recognize his home town. Washington street is now a solid mile of light,

and they burn from dusk to twelve p. m. every night in the year. The electrical connections are made through a four-inch tile set one foot under the pavement in the gutter close to the curb. All poles in each block are controlled by one switch in the base of a corner pole. Lead covered cable was used of sufficient capacity to permit of flat rate windows and signs being carried on the same circuit.

The system of charging is based on



and Meridian street, though shorter, has an equal number of lights per block. On Meridian street the lights run from Washington street to Union Depot.

This movement for a better system of lighting for the business section has been under way only since the first of the year, and already there are over two hundred poles contracted for, most of which have been set and are in operation. The system consists of five-light Jandus "luxolabra" with 100-watt tungsten lamps, and spaced eighty-four feet apart on both sides of the street. There are twelve such poles to a block,

the ground floor tenant's foot frontage, and is at the rate of one dollar and five cents per foot front per year. For this the pole is furnished, installed and equipped, kept in repair and lighted. This price is based on a five-year contract, and when completed will be a good investment for the company both in revenue and advertising.

Mr. D. F. Fradette, the contract manager of the Merchants' Heat & Light Company, has fathered this movement and an indication of the way it has been received by the public is the photo post-card here reproduced, which is being sold as a souvenir of Indianapolis.

## Tennis Playing by Night

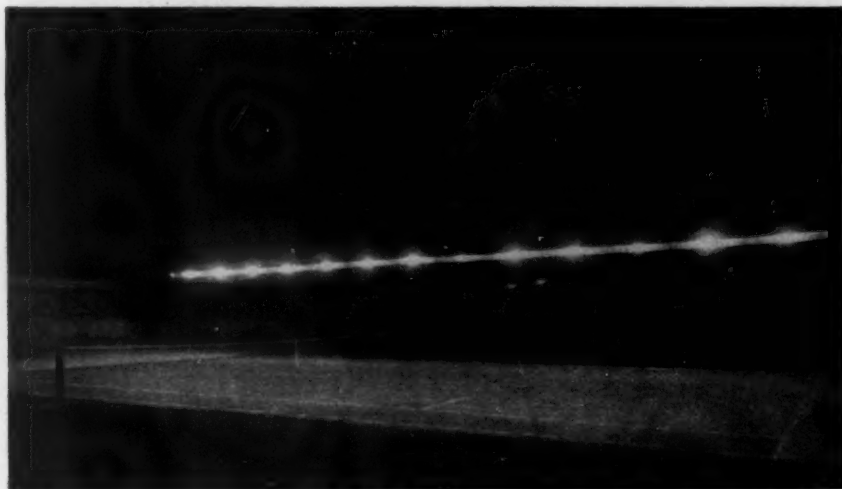
Mr. L. W. Layman, of the Commercial Department, Rochester Railway & Light Company, contributes the accompanying photograph of a unique installation in Rochester, N. Y. Mr. Layman says: "The proprietor of a large apartment hotel was induced to install metal reflectors about 14 feet from the ground on each side of a tennis court and 34 feet apart, each reflector mounting 13 100-watt Mazda lamps. The illumination is most satisfactory and it has apparently been highly appreciated by the tenants, for those who are away at business during the day

the local papers to the novelty of this installation and next morning a write-up appeared. Since that time we have had several inquiries from other owners of tennis courts in the city."

### Promotion for R. S. Hale

Mr. R. S. Hale, who for sometime has been head of the Sales Department of the Edison Electric Illuminating Co. of Boston, has received a well deserved promotion and has been succeeded by Mr. L. R. Wallis, as Superintendent of Sales Department.

It is understood that Mr. Hale will



An Illuminated Tennis Court

and unable to enjoy the exercise the courts afford are now taking advantage of the evening hours.

"This photograph was taken about nine o'clock in the evening and shows the character of the illumination. The courts are used from three to four hours every pleasant night and there seems to be no difficulty in seeing the ball at all points on the court, though it is suggested that a distance of 42 feet between reflectors would probably be even better.

"We called the attention of one of

act in an advisory capacity to President Edgar on matters pertaining to sales and development. Mr. Wallis is known to many as the inventor of the Excess Indicator, the device which has been used so successfully in Hartford, Conn., as a flat rate controller.

### D. M. Coughlin Leaves Easton

Mr. D. M. Coughlin, who for sometime has been Manager of the New Business Department of the Easton (Pa.) Gas & Electric Co., has accepted



a position as Manager of the New Business Department of the Spokane Falls Gas Company, Spokane, Wash.

Mr. Coughlin was formerly connected with the Canton Electric Co., Lincoln Gas & Electric Light Co. and Denver Gas & Electric Co. He has been succeeded in Easton by Mr. W. E. Quillin, formerly of the Commercial Department of the Montgomery (Ala.) Light & Water Power Co.

### Giving Away Gasoline Plants

*By Clare N. Stannard  
Secretary Denver Gas & Electric Co., Denver, Col.*

One of our representatives, Mr. Henry A. Tewksbury, recently called on a gasoline consumer and succeeded in interesting the man in electric lighting by tungsten lamps. He urged him to abandon his gasoline plant and adopt our service, but the man complained that he had just filled up his tank with gasoline and said that he believed for this reason that he would delay decisive action.

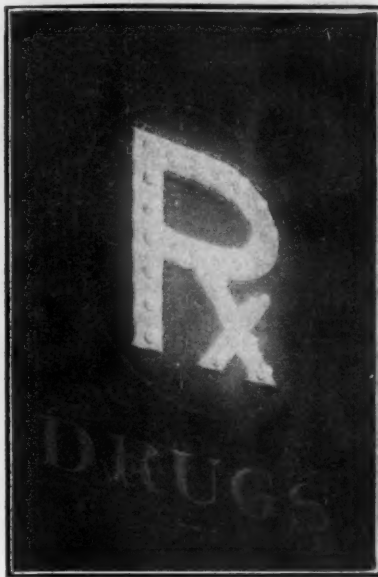
Mr. Tewksbury asked him what he had invested in the gasoline, and upon being told 96 cents, immediately handed the man a dollar, remarking that now the gasoline belonged to him and he would like to have the contract for current signed. The prospect agreed to this and arrangements were made for tungstens to be installed that afternoon. Mr. Tewksbury returned to our office in the evening carrying the gasoline plant.

The fact is that our representatives make it a point wherever a gasoline plant is displaced to immediately gain possession of the plant, so that it cannot be installed elsewhere and we now have on hand at our warehouse a number of complete plants. Another interesting point in connection with this is that when one of our consumers suggests changing to gasoline the representative tells him that if he is really anxious to make the change and install a gasoline plant there is no necessity for him to go to the expense of buying a plant, for we have one or two plants of that char-

acter in our warehouse which Mr. So-and-So has taken out of his place of business, etc., and that we will make him a present of a plant. After such a statement has been made the purchaser usually says, "Well, if Mr. So-and-So does not care for gasoline I guess I do not want it." This proves a most convincing argument.

### Shortening the Name

The Butte Montana Electric & Power Company recently installed this novel electric sign on a local drug store. Many attempts had been made to interest the druggist in electric



Novel Drug Sign, Butte, Mon.

sign advertising, but the man unfortunately had a long name and the word Drugs did not appeal to him.

In the effort to secure a short name which would meet with his approval, the symbol Rx was suggested. This interested the druggist immediately, for it suggests the physician's prescription to every man, woman and child who reads, and the sign was installed. As a consequence, the druggist now extends his direct advertising several blocks each way.

## Electrical Progress Department

### A New Line of Fixture Switches

Some recent developments in the Cutler-Hammer push-button specialties are shown in the accompanying illustrations of canopy and candelabra switches. The simple three-piece, make-and-break mechanism has been successfully used in similar Cutler-Hammer devices and thoroughly tried out in service.

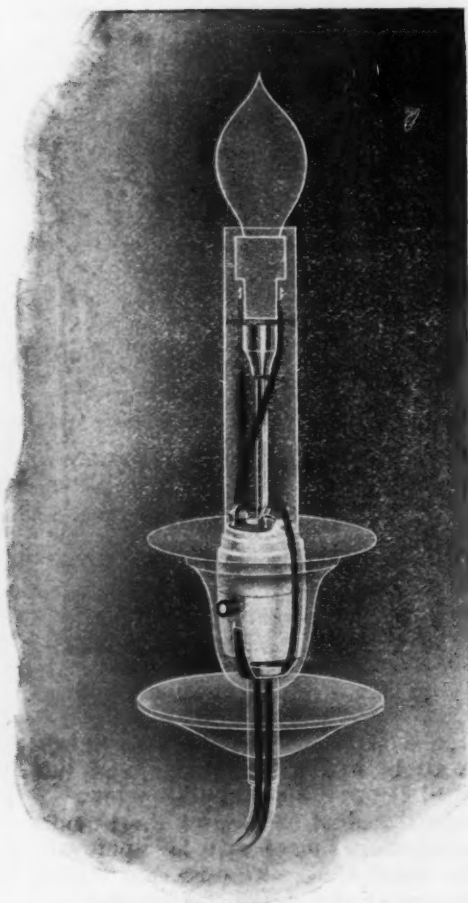
The candelabra switch is a trifle less than one inch in diameter and can be installed in prac-

brackets, on the bottoms of chandeliers and on the bases of portables; they may also be placed behind single or gang plates and used as flush switches. The switch is operated by a push or



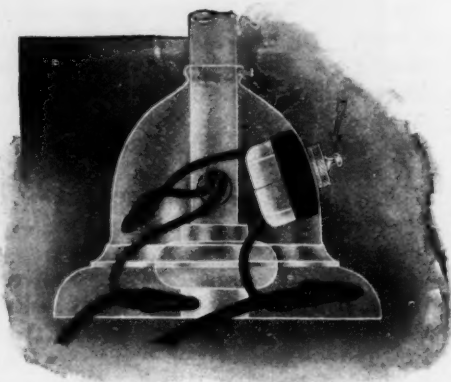
pull, but the quick break mechanism is the same as in the other types.

These "Cutler-Hammer" specialties meet the requirements of the Underwriters National Elec-



tically any standard candle cup by simply boring a hole on each side of the cup to provide outlets for the push-buttons. A straight push on one end of the push-button bar lights the lamp—a push on the other end extinguishes the lamp by a quick snap break.

The canopy switches can be used on wall

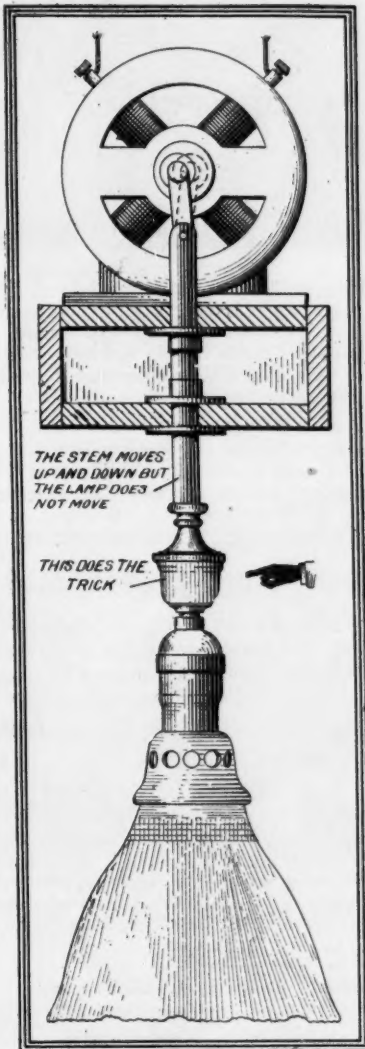


tric Association, for the porcelain construction makes them practically proof against grounds or short circuits, and the arrangement of binding screws and supporting spiders gives them every advantage for easy installation.

The Federal Sign System (Electric) has opened a branch office in Pittsburg, Pa., at 3 Wood Street, under the management of Mr. L. F. Bruce, to provide for the demand for Federal Electric Signs, Fixtures and Specialties in that district.

### "Demonstrating" Tungstens Under Vibration

It is a hard matter to convince some factory owners that any device will prevent the life of Tungsten lamps being very greatly shortened by vibrations, jars and shocks to the fixtures or their supports. A diagram of a neat window display for showing the efficiency of the Tung-



Vibrating Machines for Demonstrating Tungstelets  
Motor Runs at 1800 r. p. m.

stelet (the vibration killer and shock absorber described in these columns last month) is given herewith. The apparatus consists of a small electric motor which submits the upper part of the lamp support to the severest vibration by means of a crank and "pounder" while the lamp burns beneath the Tungstelet uninfluenced by

the commotion above. An exhibit of this kind attracted a great deal of favorable attention at the recent Philadelphia Electrical show and ought to do the same in any central station or show window. Particulars regarding its construction may be obtained from the Tungstelet Company, Walker Street, New York.

### Trolleys and Tungstens

Lincoln, Neb., is boasting that it has placed the first order for combination light and trolley poles where tungsten lamps are to be used—and this with a municipal plant, too. The design selected is shown in the accompanying illustration. The steel poles weigh 1600 lbs. each, are 30 ft. over all, set in six feet of concrete and the lamp globes are about 12 ft. 6 in. above the pavement. The present plan is to use current from the 110-volt street mains and 100-watt tungstens supported in a pendant position by shock absorbers. The poles will be spaced 100 ft. apart and as the city blocks are all 300 ft. in length there will be eight poles and approximately 2600 candle-power per block. Thirty-five blocks will be lighted in this manner.

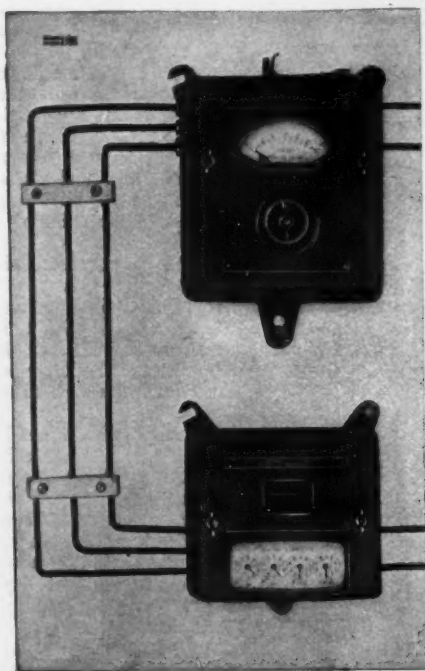
Harvey S. Tonks, secretary of the Elmer P. Morris Company, N. Y., who made a special trip to Lincoln in order to confer with the officials of the city and of the company, says, "The Lincoln Traction Company has placed the contract for the poles but I understand the cost will be shared with property owners along the streets benefited, the railway company paying thirty-one per cent and the property owners sixty-nine. At first only twenty blocks were considered but the idea was received with such enthusiasm that the number was raised to thirty-five. The municipal plant will furnish the lighting current."

We seem to recollect a number of radical ideas emanating from the City of Lincoln. It now evidently intends to rewrite a famous saying and make one line of poles grow where two grew before. May its example find many followers!

### New G. E. Prepayment Meter

The "pay-as-you-go" meter has made itself useful in many instances when the monthly bill is a hardship or a nuisance to the consumer—as well as where it is likely to be a dead loss to the central station. The General Electric Company has recently made many improvements in this type of apparatus which are embodied in the meter illustrated herewith.

The prepayment device may be attached to the meter, or as shown, it may be a separate mechanism for installation in any convenient location. The operation is simple yet practically impossible to beat. The coin is inserted in a slot at the top of the box and when the knob is turned acts as a key for operating the registering mechanism which places the coin to the credit of the consumer. The same motion of the knob closes the switch, if open, and turns on the light. The device is made to receive quarter dollars and twelve may be inserted consecutively before the slot is automatically closed to prevent further prepayment. The rate device consists of a small train of gears which may be removed and replaced by the lighting company if the rate is changed—it can



be adapted to any rate from 5 cents to 20 cents per kilowatt hour in steps of one-half cent.

The entire mechanism is of strong and durable construction. The switch is double-pole and of ample capacity to break the heaviest overload current allowed on the meter. A toggle joint prevents accidental opening of the switch by jarring and makes it impossible for any back pressure from the switch to retard the action of the escapement train. The force which operates the device is a large flat-coiled spring of many turns enclosed in a barrel or drum attached to the knob. As the knob never makes more than a full turn, the spring always exerts a practically constant force. Other mechanical details have been developed with similar perfection to reduce to a minimum any opportunity for trouble.

#### Flying Eagle Design

The Metropolitan Engineering Company of Brooklyn, N. Y., has recently erected a novel electric display sign representing an eagle with outstretched wings apparently flying through space. The eagle measures 25 feet from tip to tip, and the lamps are arranged in such a man-



ner that a lifelike flying effect is produced. The eagle's wings first flap and then remain stationary for a few seconds to represent soaring. A special flasher made by the Reynolds Electric Flasher Mfg. Co. of Chicago is used to produce the required motion.

The Reynolds Electric Flasher Mfg. Co. has opened an eastern office at 1123 Broadway, New York, where a stock of flashers for immediate delivery will be carried. The office is in charge of C. F. Ziegler.

#### Mr. H. Flood Goes to Altoona

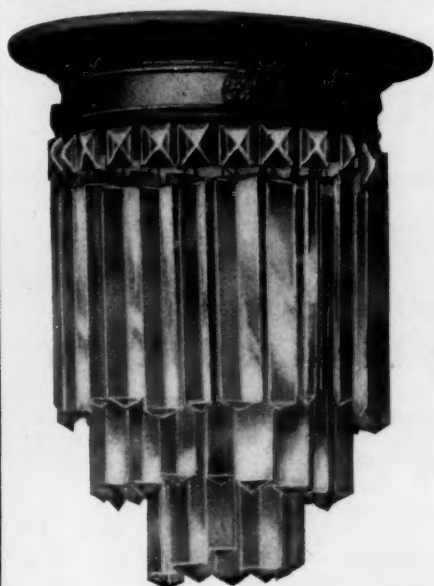
Mr. H. Flood, who for some time has been connected with the Newburgh Light, Heat & Power Co., Newburgh, N. Y., has joined the Penn Central Light & Power Co., Altoona, Pa., as power salesman.

**Wanted**—An Iowa central station offers good business openings to two active and able young men who can sell light and power. The territory is well invigorated and there is plenty of opportunity for hustlers. Address, Iowa Opening, care of Selling Electricity, 74 Cortlandt St., New York City.

**Wanted**—An operating syndicate in the west wants a manager to take charge of a central station in Minnesota. This is an exceptional opportunity for a "red blooded" man as the property is one of promise. Write fully to Minnesota, care of Selling Electricity, 74 Cortlandt St., New York City.

**Wanted**—Three experienced central station salesmen—men who can boost for electric service in a Central New York city. Write fully as to experience, record and salary. Address, Central New York, care of Selling Electricity, 74 Cortlandt St., New York City.





No. D2113—Ceiling Light.

We furnish estimates and designs  
for all kinds of

## Lighting Fixtures

For Public Buildings, Churches,  
Residences, etc.

### R. Williamson & Co.

Washington and Jefferson Sts., Chicago, Ill.

Manufacturers of

Electric Combination Fixtures  
and Art Dome Shades.

Largest Fixture Factory and Supply  
Depot in the World.

Catalogs sent prepaid upon request to Jobber only. Get your name on Our  
Mailing List.



## "First Eight Ads of the Saturday Evening Post Series"

Is the title of a book that every central station man should read. It is No. 17 of our series of central station advertising books and relates to a national advertising campaign that will bring Westinghouse electric fans, irons and toaster-stoves to the attention of seven million readers every week during the summer season.

This campaign is of interest to every central station for two reasons: First, it will directly benefit every central station handling these devices by increasing sales. Second, it will popularize the use of electric current in the home through the broader introduction of these devices of established reputation.

The 8-inch Westinghouse fan possesses every good feature that a fan for home use should have.

The Westinghouse Electric Iron presents the advantages of the electric method in a way that convinces every housekeeper who tries it. The Toaster-stove, which is both a toaster and cooker, stands without a rival in its field.

*Send for the book and ponder the significance of this  
campaign to you—then do the logical thing—stock up*

## Westinghouse Electric & Mfg. Co.,

Sales offices in all large cities

PITTSBURG, PA.

In writing to advertisers, mention "Selling Electricity"



## It's Heads I Win Tails You Lose

With most modern "High Efficiency" Lighting. The current saving is there all right, but what good is it if you have to spend it again on renewals for incandescent lamps; or carbons, labor and repairs for short-life delicate Miniature Arc lamps.

### The Real Solution is The Sunray High Efficiency Arc

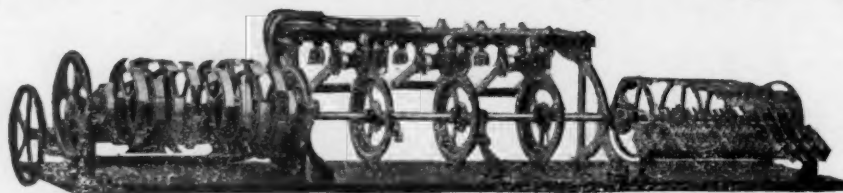
A pure white light of 460 *actual* candle-power for 450 watts. 1000 hours on ten trims of carbons at a total cost of 50 cents and always on the job.

Looks good on paper, doesn't it?

*We are ready, willing and anxious to prove it. Lest you forget write now.*

**Sunray Electric Lamp Mfg. Co.**  
105 West 42d Street, New York

## Spectacular Flashing Displays



### Require Reliable Flashers

We build 'em from the smallest to the largest.

(Approved by the Underwriters.)

New ideas for displays in blue print form sent upon request.

### Reynolds Electric Flasher Mfg. Co.

Largest Manufacturers of Flashers in the World

New York Office  
1123 Broadway

Factory and Main Office, 195 Fifth Ave., Chicago

In writing to advertisers, mention "Selling Electricity"

# Studebaker Electrics



## How to Get New Business

There is a wonderful market centered around your station. You can *stimulate* it. Promote the use of Electrics and you develop *your own business*.

Thinking people everywhere are adopting STUDEBAKER Electric vehicles in preference to the horse. They cost less to maintain. They are so easy to control; so safe and convenient, they appeal to every member of the family.

Encourage their use and you increase *your earnings*.

We will help you start a sales force in your vicinity which will create profitable new business every day.

Write us and we will advise you how you can profit by the demand for electric vehicles.

### Studebaker Automobile Co., South Bend, Ind.

BRANCHES—New York, Cleveland, San Francisco, Louisville, Portland, Minneapolis, Dallas, Pittsburg, Chicago, Boston, Denver, Seattle, Columbus, Kansas City, Stockton, Salt Lake City, Oakland, Sacramento, Philadelphia, Indianapolis, Milwaukee.

In writing to advertisers, mention "Selling Electricity"

# MONTGOMERY

## The Biggest Industrial Opportunity In the New South

*Montgomery, Alabama, a city of 70,000 population,  
invites new industries and meets them half way with*



Six trunk line railroads.

A clean, healthy city with low tax rate.

The finest water in the world.

Adequate supply of labor, black and white.

The Alabama River, which is navigable to tide water.

Cheap electric power.

The source of electric power is the famous Tallassee Falls. 8000 horse-power is now being developed, with a reserve capacity of enormous promise.

The Montgomery Light & Water Power Company, backed by the business interests of the city, can practically guarantee prosperity to new industries.

## Montgomery Light & Water Power Company

Montgomery, - Alabama

In writing to advertisers, mention "Selling Electricity"



## An Organization that Offers Opportunities

**T**HE Narragansett Electric Lighting Company offers exceptional opportunities to ambitious men in its commercial department.

This company to-day ranks among the half-dozen most progressive central stations of the country. It serves a territory covering the city of Providence, several other very active merchandising centres, and many busy industrial towns.

Its power house and distributing system are constantly and rapidly being extended. Its commercial department has quadrupled in size in the last four years and includes every desirable feature of which we know.

The company is desirous of adding to its staff a few men of exceptional ability and more-than-ordinary ambition. The salaries paid are adequate; the living conditions in Providence, and environs, are excellent and the organization one to which it is both a pleasure and an honor to belong.

Correspondence confidential.

**Narragansett Electric Lighting Company**  
**Providence, Rhode Island**

# If Your Neighbor Has Electric Light

and you have not, just step into his house some evening after dark and compare its light with your own. Study each point of convenience, cleanliness, clearness, beauty, carefully and then figure out for yourself if it would not pay you well to have your house wired for electric light this spring.

*Call Bell Main 2401*

*Cuyahoga Cent. 5860*

## The Illuminating Company

Sales Department:

232 Superior Avenue, N. E.  
Cleveland, Ohio

In writing to advertisers, mention "Selling Electricity"

# A Million Dollar Ten-Story Building

ablaze with electric lamps from top to bottom on two street sides is the Denver Gas and Electric Company's addition to the "City of Lights," as Colorado's capital is known the world over. The building, one of the two first "sky-scrapers" in the city, and now nearly completed, is perhaps the only general office structure erected by any company with its principal architectural feature the exterior lighting.



Hardly was it well under way before plans were made for erecting large buildings on the other three corners, showing the value to a business district of acquiring a concern that does business with thousands, most of whom call at the office at least once a month.

An idea of the exterior display is gained from the figures. There will be 7,740 four-candle lamps, 300 twenty candle-power, 126 thirty-two candle-power, 236 forty-eight candle-power and 37 two hundred candle-power, with an additional 40 two-hundred candle-power in the windows, and 275 twenty candle-power lamps for bulk-head window lighting. A special feature will be fifteen

arcs on a new design of bronze fixtures. The sign on the corner of the roof will contain 1000 four candle-power lamps. This gives a total of 76,020 candle-power on the exterior. The construction cost on the exterior lighting is \$25,000.

Current consumed in this lighting is sufficient to supply the average town of 20,000 inhabitants.

One of the other features of the new building will be the demonstration room, which will be the largest and most complete in the country. It will have a seating capacity of 500, and will be equipped with every comfort. There will also be a completely furnished and equipped five-room home. This will contain every known gas and electric appliance suited to domestic uses, perhaps the first feature of the kind in the country. The lighting of the rooms used by the office force will be indirect throughout, giving an even light in all parts of the rooms.

We are in need of  
Several Good Solicitors  
to canvass for  
Large Industrial Power Work  
also a  
Salesman  
to Push  
The Installation of Electric Signs

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Consolidated  
Gas, Electric Light & Power Company  
of Baltimore

Commercial Department—Electric Division  
Continental Building  
Baltimore, Md.



## How Any Ambitious Man Can Be a "Plutocrat"

When the list of stockholders of the United States Steel Corporation was published the other day, many people noted with surprise that many prominent men of all vocations held but a few shares—worth, according to the quotation of the day, just \$81.87½ each. Yet these small holdings enable them to participate in stockholders' meetings, have a voice in the management, even act as officers of the corporation. Each man as a stockholder "belongs on the inside."

This being "on the inside" is one of the secrets of success. The man who has money in a large enterprise involuntarily studies the workings of that enterprise, feels responsibility for it, gets to know the whys and wherefores of big business, learns to think in big figures. He becomes, in short, a business man instead of a mere wage earner. Most people think that it takes a great deal of money. It doesn't.

Now this is an appeal to young and ambitious men in the central station industry to "belong." You should, first of all, own a share in your own company. After that, shares in one or two other companies which are notably successful and progressive. The knowledge of inside facts which you will gain as a stockholder will be invaluable. The substantial and assured feeling which ownership of dividend-paying stocks inspires is worth more to you than an increase in salary.

We handle seasoned and proven stocks in successful gas and electric companies. We execute orders of from a single share up.

Get your name on our mailing list.

**WILLIAMS, McCONNELL & COLEMAN**

60 WALL STREET, NEW YORK

# Allegheny County Wants More Factories

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and we have a very low power rate  
for Industrial Power to attract them

---

## The Allegheny County Light Company

Pittsburg, Pa.

serves

## 56 Municipalities

We have power experts always at the service  
of our patrons — present and prospective

In writing to advertisers, mention "Selling Electricity"

## SECOND-HAND

**ENGINES, GENERATORS AND BOILERS**

Also Miscellaneous Apparatus

**FOR SALE AT LOW PRICES**

Any Central Station requiring this type of equipment, for either regular or auxiliary purposes, can obtain the apparatus advertised at bargain prices.

**Engines**

- 1 1000-1300 H. P. Cross Compound Condensing Engine; size of cylinders: high pressure 24 in. dia., low pressure 40 in. dia.; stroke 48 in.; fly wheel 20 ft. in dia., 60 in. face. This engine is in first-class condition.
- 1 100 H. P. Buckeye Engine
- 1 100 H. P. Kensington Engine.
- 1 18x36 in. Watts Campbell Corliss Engine, 90 R. P. M., driving through jack shafts and belts.
- 1 11x19x11 in. Westinghouse S. A. A. Compound Engine, 300 R. P. M., belt drive.
- 1 9x15x9 in. Westinghouse S. A. A. Compound Engine, 350 R. P. M., belt drive.
- 1 250 H. P. Westinghouse Engine (crank and cylinder broken).

**Generators**

- 1 Stanley, 2 P. 2,500 v., 360 kw.; generator, 152 R. P. M., alternations 8,000, with a 2 P. 60 v. 1,175 R. P. M. 6 kw. C. C. exciter. This generator is direct connected with a Williams vertical engine.
- 1 Stanley S. K. C. 3 bearing 2 P. 60 cycle 2,400 v. 240 kw. 450 R. P. M. belted generator, complete with Crocker-Wheeler, type D 4 kw. 65 v. 61 1-2 amp. 1,100 R. P. M. exciter.
- 1 Westinghouse 150 kw. 2,200 v. single phase, 60 cycle generator.
- 1 Fort Wayne 75 kw. 1,050 v. 125 cycle generator.
- 1 Westinghouse 60 kw. 1,050 v. 125 cycle generator.
- 1 Westinghouse 60 kw. alternator, 1,150-1,050 v. 133 cycles 1,650 R. P. M.
- 1 Westinghouse 25 kw. alternator, 2,216-1,050 v. 133 cycles 2,000 R. P. M.
- 1 Westinghouse 50 kw. alternator, 1,709-1,050 v. 133 cycles 2,000 R. P. M.

**Boilers**

- 1 150 H. P. Return Tubular Boiler, 90 lbs. inspection.
- 1 100 H. P. Kensington Boiler, 100 lbs. allowed.
- 1 60 in. x 16 ft. Duplaine Return Tubular Boiler
- 1 52 in. x 12 ft. Muckle Return Tubular Boiler
- 1 150 H. P. Berry Boiler.
- 2 100 H. P. Return Tubular Boilers.

**Miscellaneous**

- 2 Pumps, 4x6x4 in.
- 1 Air Compressor for deep well, 5 1/2 x 6 x 7 in.
- 1 5,000 gallon tank.
- 1 Westinghouse Panel Switchboard.
- 1 Round Voltmeter.
- 2 Rheostats.
- 2 Closed Feed Water Heaters.
- 1 U. S., 4 kw. 125 v. 2,400 R. P. M. exciter.
- 1 Ft. Wayne 2 kw. 125 v. exciter.
- 1 Westinghouse 3 kw. 125 v. 1,600 R. P. M. exciter.
- 1 Worthington 4x6x4 in. Pump.
- 1 Westinghouse 1 kw. 125 v. 1,350 R. P. M. exciter.
- 1 Westinghouse 1 kw. D. C. 125 v. 2,250 R. P. M. exciter.
- 1 U. S. 1 kw. D. C. 125 v. 2,400 R. P. M. exciter.
- 1 Worthington 6x4x6 in. Boiler Feed Pump.
- 1 No. 7 1-2 Sellers Injector.
- 1 Collins Damper Regulator.

If interested communicate promptly with H. C. Lucas, Purchasing Agent, at address given below. Full particulars forwarded you upon request, together with prices. We will be glad to make appointments for inspection of any or all of this apparatus.

**The Philadelphia Electric Company**

10th and Chestnut Streets  
Philadelphia, Pa.

# **H. M. Byllesby & Company**

**Engineers**

**Managers**

**Design**

**Construct**

**Operate**

**Electric Light Plants**

**Natural Gas Systems**

**Artificial Gas Systems**

**Interurban Railways**

**Street Railways**

**Water Power Plants**

**Water Works**

**Transmission Systems**

**Irrigation Systems**

**Drainage Systems**

**Examinations and Reports**

**CHICAGO**

In writing to advertisers, mention "Selling Electricity"



## Constructive Publicity

Is the community you serve satisfied with your rates, system of charge, service and public policy?

Is it free from prejudice against public service corporations in general?

Does it realize the disastrous consequences of municipal ownership—

And view the questions involved in franchise and city lighting disputes from a dispassionate standpoint?

If you can answer each of these questions affirmatively you are fortunate, indeed.

Otherwise you have not obtained a clear title to the good will of your public.

There is not a community in the United States whose viewpoint and general attitude regarding Public Utilities cannot be changed for the better by a campaign of CONSTRUCTIVE PUBLICITY.

The C. W. Lee Company has conducted most of the successful campaigns of this sort during the past five years.

We are the originators of CONSTRUCTIVE PUBLICITY as applied to public utilities, and possess facilities and an organization that achieve success under the most adverse conditions.

**THE C. W. LEE COMPANY**

**WEST STREET BUILDING**

**NEW YORK CITY**

# Doherty Operating Company

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Organized originally to enable the highest degree of applied operating ability in the gas and electric properties controlled by Henry L. Doherty & Company.

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The Doherty Operating Company is an organization of practical and experienced Operators, a corps of Specialists and Experts.

Will undertake the management of other properties only upon a contingent basis of profit.

Correspondence invited and treated confidentially.

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## Doherty Operating Company

60 Wall Street, New York

In writing to advertisers, mention "Selling Electricity"



To the Makers, Sellers and  
Buyers of Electric Current

Visit our booth at *The Fourth Annual  
New York Electrical Show* to be held  
in the Madison Square Garden, New  
York City, October 10 to 20, 1910.

The New York Edison Company  
Fifty-five Duane Street

The  
United Electric Light and  
Power Company

Alternating Current Exclusively

Light, Heat and Power

Borough of Manhattan  
City of New York

MAIN OFFICE  
1170 Broadway, New York

BRANCH OFFICE  
519 West 146th Street, New York

In writing to advertisers, mention "Selling Electricity"



# G-E Heating Devices

## Help To Even Up the Day-load



### The G-E Radiant Toaster is the Logical Beginning for More Heating Device Business

100 G-E Toasters used 15 minutes daily increase your average day-load by 15 kilowatt-hours, your income by \$550 a year.

The Toaster, seen and used by the whole family, cannot fail to prejudice its owner in favor of other electric heating and cooking devices. Its initial cost is so low that it is naturally the first electric cooking device purchased.

#### G-E Toasters "Make Good" on Trial

G-E Radiant Toasters are so simple and durable in construction that they are not injured by the trial period. The wire guards effectually protect the heating coils.

Representative toaster campaigns show that over 40% of all G-E Toasters put out on trial are retained after the first short trial.

Forty per cent. of *your* residence business will give the number of G-E Toasters you can place.

### Start a Toaster Campaign Now

Right now is the psychological moment for pushing G-E Radiant Toasters. Drive home the many conveniences of the electric breakfast. Put the G-E Toasters out on trial—they'll "make good" your claims and sell themselves.

## *General Electric Company*

The Largest Electrical Manufacturer in the World

Sales Offices in All Large Cities

New York Office: 30 Church St.

Principal Office: Schenectady, N. Y.

#### An Exclusive Feature

The heating element consists of four zig-zag coils of special Calorite wire, wound on tapered strips of mica. To compensate for the rising hot air currents these spirals are wider at the bottom than at the top, thus an even distribution of heat is assured—while the mica strips also serve as simple and effective supports for the Calorite wire and prevent all wire sagging.

#### The Efficient Calorite Heating Unit

Calorite is the most effective material known for transforming electricity into heat in a toaster. The G-E Toaster is the *only* toaster using Calorite because Calorite was discovered and perfected in our own Research Laboratories and is manufactured by us for General Electric Heating Devices only.

# BRIGHTER BROOKLYN

|| Throughout the year, the electrical publications are of vital interest and real service to the central station.

|| The Brooklyn central station is glad of the annual opportunity afforded by Convention Numbers to indicate its appreciation.

**Edison Electric Illuminating Company  
of Brooklyn**



### Show This Picture to Your Printer

**T**HIS is the plant of the Phelps Publishing Company, one of the largest and best printing establishments in New England. It is a first-class example of Holophane illumination—satisfactory, economical, attractive. The results from an illumination standpoint are practically the same as daylight and much more uniform than actual daylight in this plant. The printers in your city would be glad to get this kind of illumination. Why don't you sell it to them.

For details address

## HOLOPHANE COMPANY

Sales Department

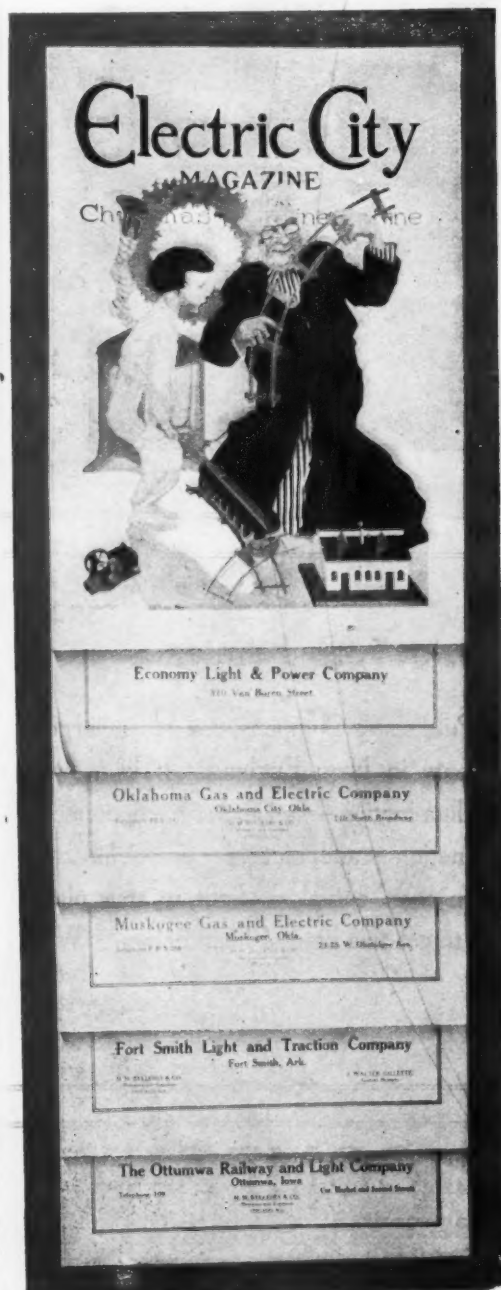
NEW YORK  
CHICAGO

NEWARK, OHIO

SAN FRANCISCO  
BOSTON

In writing to advertisers, mention "Selling Electricity"

# Eleven Central Stations In Eleven Leading Cities



Of the country are now using the **ELECTRIC CITY MAGAZINE** monthly for distribution among their customers, actual and prospective.

These companies are well satisfied with the results they are obtaining through its use, and are well satisfied with their investment.

## You Can Accomplish Good Results in Your City

by a judicious distribution of this live Central Station magazine each month. The back cover page is reserved for your announcement, and the magazine, to all appearances, is published by you. We mail direct to your lists and handle all the details. Now is an opportune time to advertise,

If you are not familiar with our proposition, we will thank you to write us.

**Electric City Publishing  
Company**  
84 Market Street  
Chicago

In writing to advertisers, mention "Selling Electricity"





## Unique Showers

A large variety of Novel

Designs for the sales-  
rooms managers looking for

## Good Sellers

Now is a good time to get prices,  
descriptions and samples. Don't buy  
in a rush and sell at your leisure.  
Get the goods that will SELL IN A  
RUSH.

## Unique Art Glass and Metal Co.

Factory  
BROOKLYN, N. Y.

Salesrooms  
36 West 28th St., NEW YORK

### SOME TALKING POINTS THAT WILL SELL

## Everson Cleaners

In YOUR City

Weight  
35 lbs.

Price  
\$80

- 1—Can be lifted by the little finger
- 2—Greatest effective suction
- 3—Safety valve to protect motor
- 4—1-6 H. P. Holtzer-Cabot motor
- 5—Indestructible vulcanized fibre case, non-conductor of electricity
- 6—No screws, clamps or catches
- 7 etc.—On request

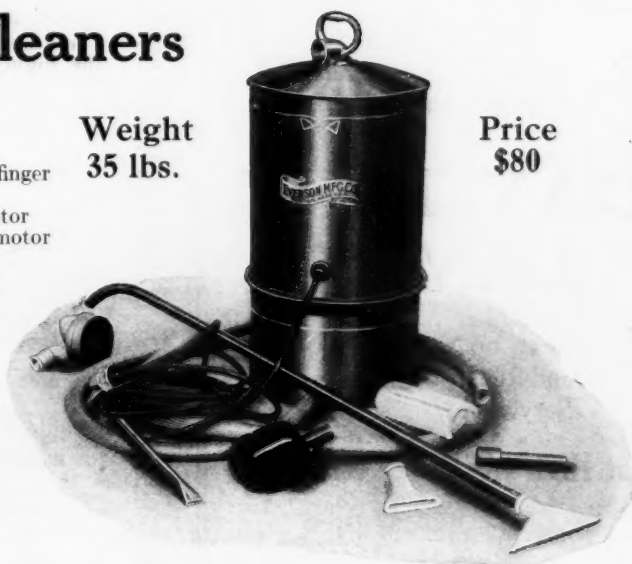
The Good Points of All

The Bad Points of None

**Everson Mfg. Co.**

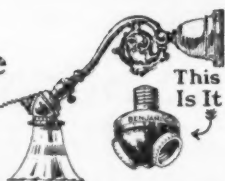
34 Oliver St.

BOSTON, MASSACHUSETTS



In writing to advertisers, mention "Selling Electricity"

At Home  
At the Office  
In Any Place

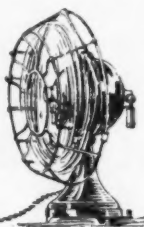


of Business  
**BENJAMIN  
PLUG CLUSTER**

is a great convenience because it gives you two outlets where you have had but one, doubling the capacity of your sockets by doing the work of two. You may attach any other electrical appliance that you wish and burn your lamp at the same time. It requires no extra wiring—you simply screw it into the socket.

*For sale by all Electrical  
Dealers or sent postpaid  
on receipt of price, 75c.*

**BENJAMIN ELECTRIC  
MFG. COMPANY**  
507 W. Jackson Blvd., Chicago



**THE MODERN ARC LAMP**

It Pays the Central  
Station to Investigate

**DAYLIGHT  
LAMPS**

Keep up the Quality  
and Reliability of your  
Service by using the

**Best High Efficiency Arc Made**

Write today to

**Volkmer Electrical Company**  
585 Hudson St., New York

**GIVE YOUR CUSTOMERS**



**THIS IRON**

The heating element is of wire fused to the bottom in enamel. No air space to retard the heat downward, but a large air space above keeps the top cool. Every inch of the heating surface is effective.

A Simplex Iron sold to a customer brings satisfaction from the start and leads to other heating devices.

The best of material and workmanship is put into every Iron and carries with it, wherever it goes, a Simplex Guarantee for Quality.

We not only manufacture Irons of the highest grade but every device that can be heated by electricity. Put your heating problem up to us and get apparatus that will last.

**Write for Booklet "K."**

*This Trade Mark*



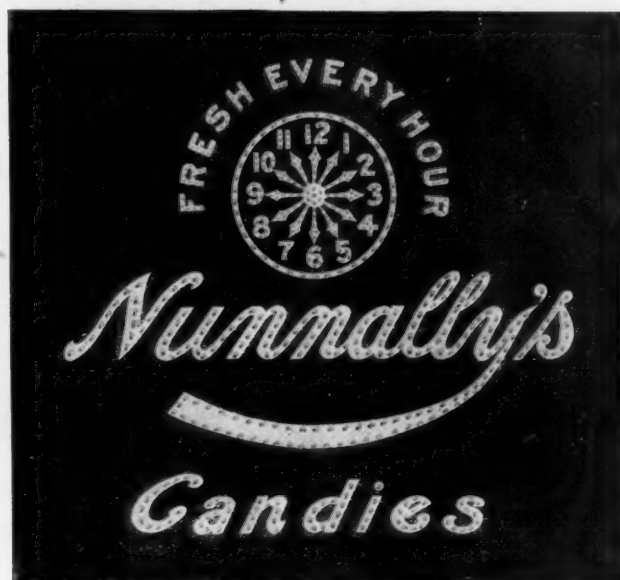
*Stands for Goods Made on Honor*

**SIMPLEX ELECTRIC HEATING CO.**

**Cambridge, Mass.**

Monadnock Block, Chicago  
612 Howard St., San Francisco

# Did You Ever See a Sign Just Like This?



**"FRESH EVERY HOUR" Burns Steadily**

**The Hands on the Dial Flash Out the Hours**

**"NUNNALLY'S CANDIES" Shines Together Flashing  
On and Off**

This is what makes a Greenwood sign an active advertisement.

There is a new idea behind it and you look to see  
how it works—what it means.

**The New Bulletin is Ready. You Need it in Your Files—to Use**

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**Greenwood Advertising Company**

**KNOXVILLE, TENNESSEE**

In writing to advertisers, mention "Selling Electricity"

SEND FOR CATALOGUE OF OUR NEW TYPE

# FLASHERS

**The Electric Carriage Call & Specialty Company**  
173 Christopher Street, New York

## THE DELCO Combination Set

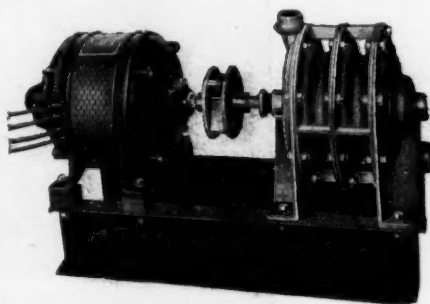


List Price \$20.00. Consumes 500 watts.

Three utensils and one heating element. A complete epicurean meal may be prepared with this combination set. : : : : :

Delco Three Heat Iron — Just Out.

**Diamond Electric Co.**  
BINGHAMTON, N. Y.



## Electric Driven Multi-Stage Turbine Pump

To Sell Electricity  
Sell Electric House Pumps  
Cellar Drainers  
Pneumatic Water Systems and  
Vacuum Cleaners

Write for Catalogue giving full information and prices.

**The Chicago Pump Co.**  
1055 Fulton Street CHICAGO, ILL.



This double-faced sign is a  
**READY SELLER**  
at \$99.00 net to Central Stations

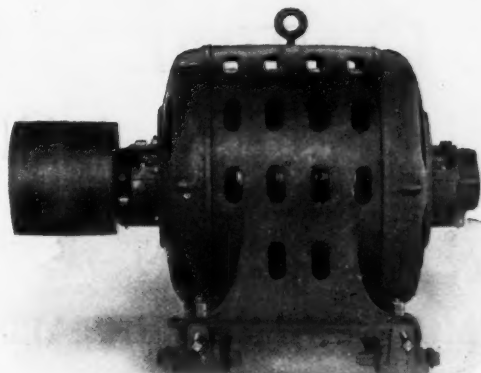
Size 5 ft. x 7 ft.

Electric Letters, Porcelain Enamel  
Other Letters, Glass Transparency

**HALLER SIGN WORKS (Inc.)**  
704 S. Clinton Street, Chicago

In writing to advertisers, mention "Selling Electricity"





**Alternating  
Current  
Motors**

## **Wagner Electric**

**Manufacturing Company, St. Louis, Mo.**

**STARTING Troubles** make unsatisfactory many Alternating Current Installations, Single and Polyphase Motors, otherwise serviceable and reliable.

**The Starting Torque** and overload capacity of Wagner Motors is the most liberal of any produced in this country. As Alternating Current Motor Specialists the Wagner Company invite actual and prospective motor users to avail themselves of their fifteen years' experience. Correspondence invited. Please address the nearest office.

Atlanta, Empire Bldg.; Boston, 110 State St.; Buffalo, 41-43 East Eagle St.; Charlotte, N. C., Trust Bldg.; Chicago, Marquette Bldg.; Cincinnati, First National Bank Bldg.; Cleveland, New England Bldg.; Denver, Ideal Bldg.; Detroit, Union Trust Bldg.; Kansas City, 1113 Wyandotte St.; Los Angeles, 326 S. Los Angeles St.; Minneapolis, Security Bank Bldg.; Montreal, Bell Telephone Bldg.; New Orleans, 205 Chartres St.; New York, 50 Church St.; Philadelphia, Real Estate Trust Bldg.; Pittsburg, Lewis Blk.; St. Louis, 6400 Plymouth Ave.; San Francisco, Balboa Bldg.; Seattle, Pacific Blk.; Sioux City, 515-517 5th St.

**Wagner, Quality**

In writing to advertisers, mention "Selling Electricity"

# THE CENTRAL STATION DEVELOPMENT COMPANY

ARE EXPERTS  
IN THE APPLICATION OF  
MODERN COMMERCIALISM  
TO  
CENTRAL STATION CONDITIONS



**"New Business" Departments Created and Maintained**

Co-operation Without Competition

**Expert Investigation of  
Central Station Revenue Conditions**

*Prospectus sent on application*

**Address, Cleveland, Ohio, U.S.A.**



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## We Have the Greatest Number of Designs

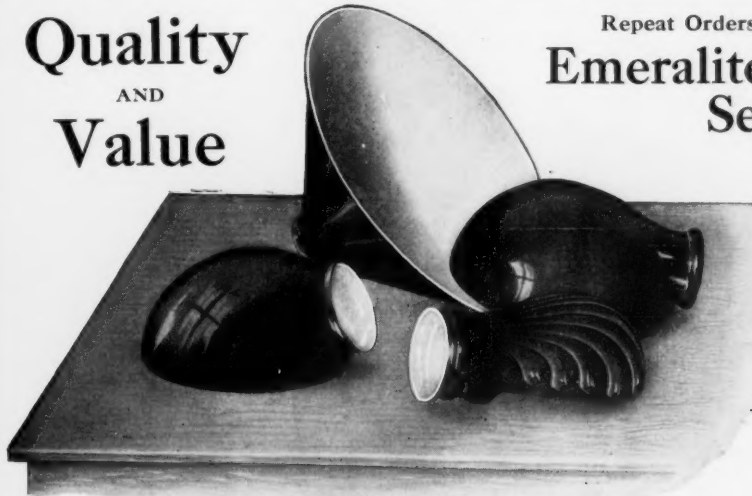
to meet all requirements and are the largest manufacturers of ORNAMENTAL POLES and STREET LIGHTING FIXTURES in the United States.



Our  
Product  
is the  
Standard

**ELMER P. MORRIS CO., 94 West St., New York**

**Quality**  
AND  
**Value**



Repeat Orders Prove That  
**Emeralite Shades**  
**Sell**

This Means

**Satis-  
faction**

To You  
and Your  
Customers

These are some "Distribution Curves" in our New Booklet that will startle you. Write for it and sell your customers **Maximum Illumination with the Most Artistic Effects.**

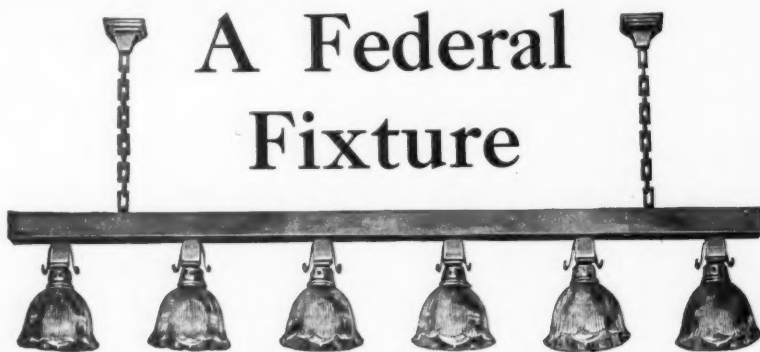
A Complete Line of Desk Fixtures for Office, Bank or Home

**H. G. McFADDEN & CO., 40 Warren St., New York**

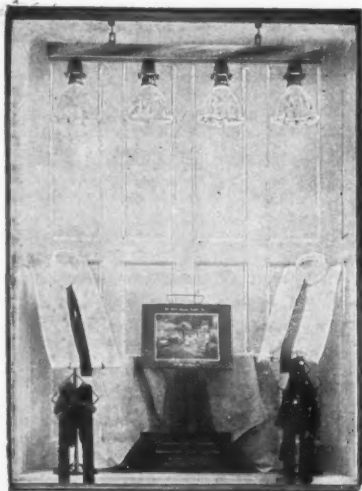
In writing to advertisers, mention "Selling Electricity"

# FEDERAL

ELECTRIC COMPANY



Here is an example of Federal Design and Finish—a Tungsten fixture for window lighting



THE heavy square brass bar, suspended by square link brass chains—approaching the Mission style—gives the fixture a simple elegance that is in perfect keeping with modern standards of window furnishings.

The trouble with the window lighting in most towns is its monotonous sameness. This fixture is refreshingly different and you can place several of them with little effort and to good effect.

They come in various sizes. Look for fixture No. 670 in your Federal Bulletin No. 230.

**FEDERAL ELECTRIC COMPANY**  
CHICAGO.